



70 ANNIVERSARY MECHANICAL ENGINEERING in ALBANIA

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**70th anniversary of mechanical engineering in
Albania
1951 - 2021**

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ANNIVERSARIO
SEPTVAGESIMVM
ALBANIAE MECHANICA IPSVM

NOS ESSE QVASI NANOS
GIGANTIVM HVMERIS INSIDENTES,
ET SIC
LONGIUS VIDERE POSSUMUS

BERNARDVS CARNOTENSIS
GALLVS NEO-PLATONISTA PHILOSOPHVS
XII SAECVLVM

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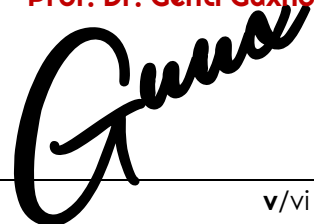
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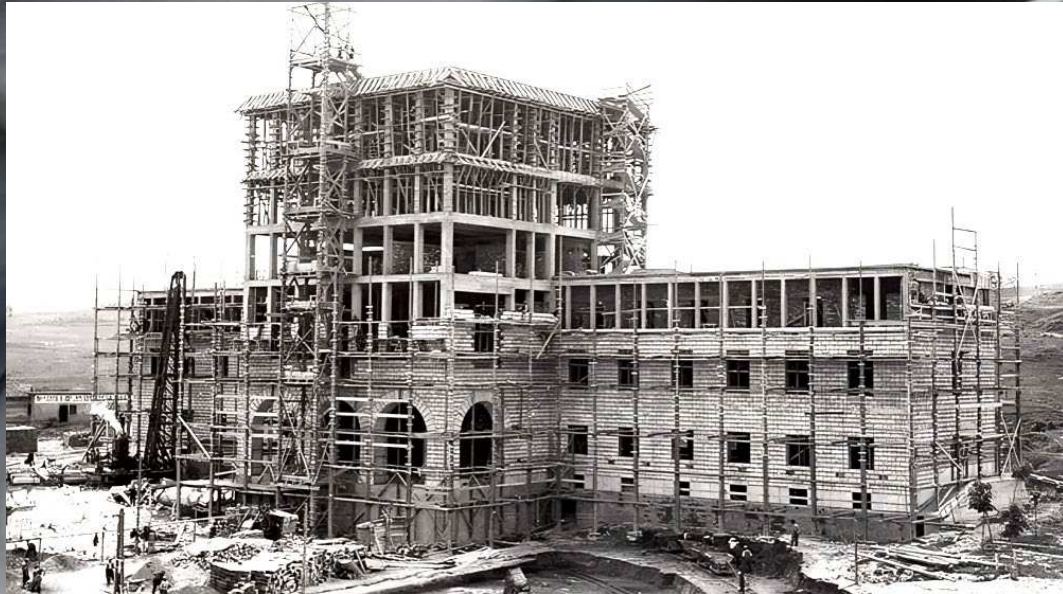
PREFACE

The Faculty Jubilee is an occasion to celebrate, as well as can serve as a moment of reflection and remembrance of the most important events in its 70-year journey. Why is the book entitled **"70th anniversary of Mechanical Engineering in Albania"**? The book is conceived not only as a description of the history of the faculty, but important events are set in the historical, economic, and political background of Albania, without claiming an in-depth analysis, but to make the reader aware of the reality that accompanied the activity of the Faculty of Mechanical Engineering. This becomes more important when we consider that in Albania, we have had major socio-economic upheavals that in one way or another have affected higher education.

A special place in the book is occupied by the generations of professors of this faculty who contributed to the establishment of higher education in mechanical engineering, laying the foundations for the organization of scientific research, and the publishing of university textbooks. It is the place to thank for the advice by Prof. Bashkim Baholli and Prof. Luan Voshtina, for the support and information of Prof. Marenglen Gjonaj, and undoubtedly for the unstinting help, continuous support, and fruitful discussions with Prof. Angjelin Shtjefni. Many of the facts and data provided in this publication are based on the monograph of Prof. Andonaq Londo "Faculty of Mechanical Engineering on its 50th anniversary" 2001 edition. The book was edited by Prof. Thomas Carolus of Siegen University (Germany). Thanks to him this book got a suitable form for publication. A special thanks to master Mihallaq Goxhaj, who with special care helped in the selection of photographs from the UPT archive.

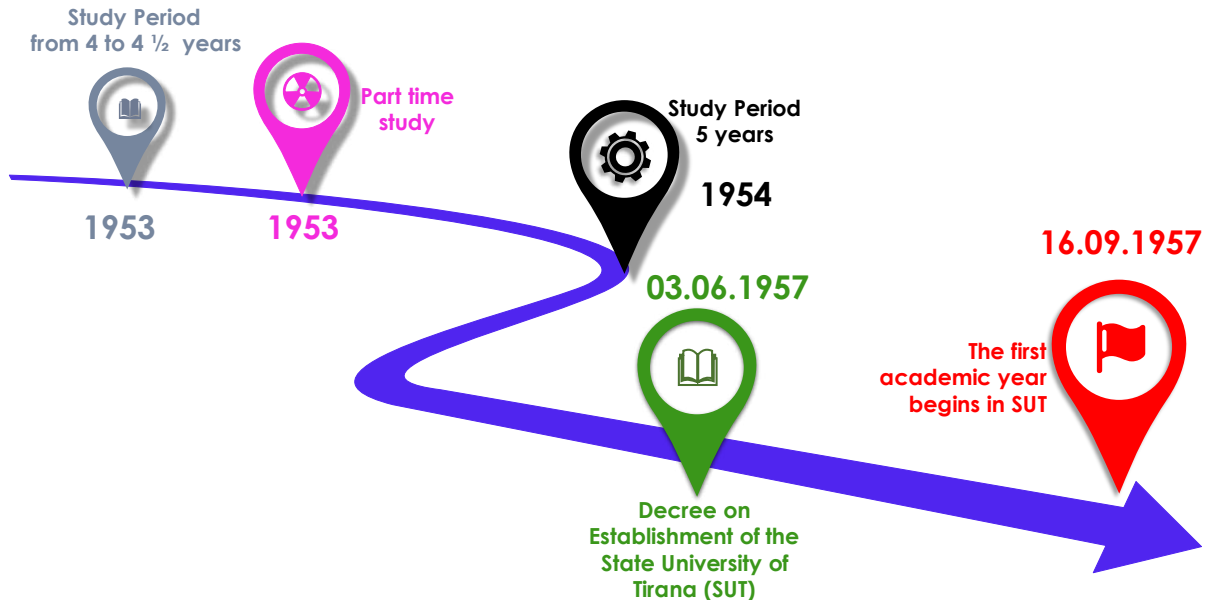
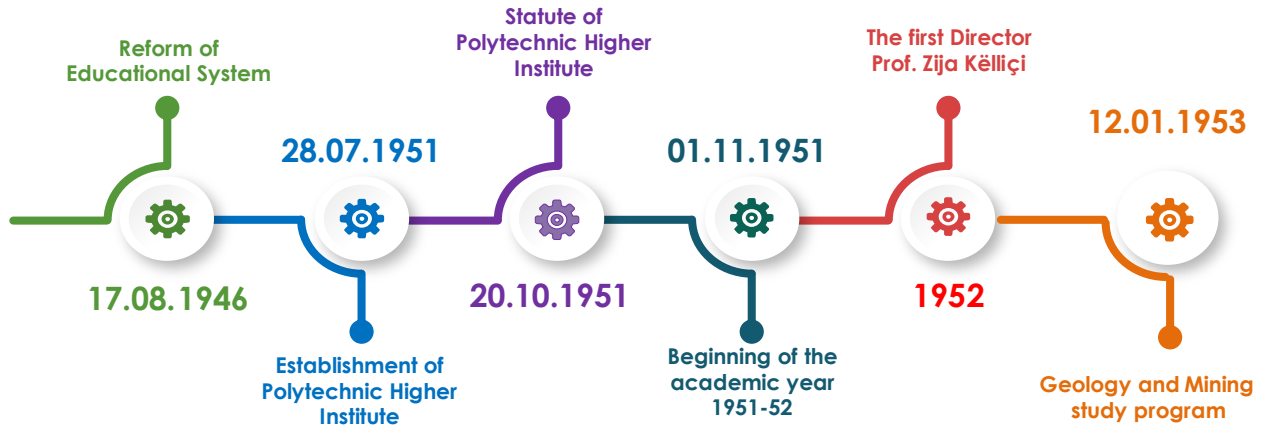
Dean of the Faculty of Mechanical Engineering
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1ST PERIOD
1951 - 1957

TIMELINE





1.1 THE DIFFICULT PATH TO SETTING UP HIGHER EDUCATION IN ALBANIA

THE NATIONAL and political thought of Albanian intellectuals for the establishment of the Albanian national state¹ of the 19th century was synthesized in S. Frashëri² political platform “***Albania - What she has been, What she is, and What she shall be***”³, in 1899.

¹ This was the main purpose of the National Awakening (Albanian: Rilindja Kombëtare) or Albanian Renaissance. The National Albanian Awakening (1830-1912) was a cultural, political, and social movement to establish an independent state of Albanians in the Balkans.

² Sami Halit Frashëri (Turkish: Şemseddin Sami Bey) (1850–1904) – an Ottoman-Albanian linguist, writer, philosopher, playwright and prominent figure of the National Albanian Renaissance movement. Author of the geopolitical manifest for National Albanian Awakening in 1899.

³ Full Title: “*Shqipëria ç'ka qënë ç'është dhe ç'do të bëhetë. Mendime për shpëtimt të mëmëdheut nga reziket që e kanë rethuarë.*”

This platform as an Albanian Renaissance Movement geopolitical manifest, elaborated, among others, the necessity of developing education in the Albanian language⁴, as a precondition for the success of the new Albanian state. S. Frashëri's strategy for an education system in the Albanian language foresaw the establishment of an Albanian university (in Albanian: *gjithëmësime*)⁵, in the country's capital.



Figure 1.1 Students of the Institute “Nana Mbretëshë”⁶ in Tirana (1938)

The establishment of the Albanian state⁷ and the normalization of its independent institutions took a relatively long time. Therefore, in the period 1912 to 1944, the establishment of higher education institutions was not possible. However, in the period of the Albanian Kingdom⁸ (1928 to 1939), about 400-500 students were sent abroad with scholarships from

⁴ “Albania cannot exist without the Albanians, the Albanians cannot exist without the Albanian language...” F.H. Frashëri “*Shqipëria ç'ka qënë ç'është dhe ç'do të bëhetë*” Bucharest, Romania, 1899.

⁵ “Në kryeqytet të Shqipërisë, përveç shkollave të dyta e të treta do të jetë një *gjithëmësime* (dar-yl-fynun, panepistimion) ...”, (“In the capital of Albania, in addition to the second and third-level schools, there will be a university (dar-yl-fynun, panepistimion) ...”, Ibid. p. 79

⁶ “Queen Mother” Pedagogical Institute – (Albanian: Instituti Femnuer “Nana Mbretëshë”) was a women's pedagogical high school, created in 1933 in Tirana. It is named after Queen Mother Sadijë Toptani, mother of Zog I, King of Albanians.

⁷ London Conference (1912-13) following with Treaty of London on May 30, 1913, of the six Great Powers of that time (Austria-Hungary, France, Great Britain, Germany, Italy, and Russia)) decided as a principality the form of the regime of the newly created Albanian state. Wilhelm Friedrich Heinrich Prinz zu Wied (1876-1946) was appointed by the great powers Prince of Albania Wilhelm I. (Albanian: Princ Vidi, Skënderbeu II i Shqipërisë)

⁸ The Albanian Kingdom (*Mbretëria Shqiptare*) was the official name of Albania between 1928 and 1939. Albania was proclaimed a monarchy by the Constituent Assembly and President Ahmet Bey Zogu, was proclaimed Zog I, King of Albanians on September 1, 1928. The return to the monarchy was accompanied by a syntactic change in the royal style. The head of the Albanian state has been proclaimed king of all Albanians, wherever they lived i.e., not only of Albania. He used the

the government. Including those who continued higher education at their own expense in this period studied a total of 830 young people, mainly in the universities of Italy, France, Austria, Germany, and a limited number in the Balkan countries such as Greece, Romania, Turkey, etc., (of whom only 35 students studied engineering)⁹.



Figure 1.2 Albanian – American Agriculture Institute of Kavaja¹⁰ (1925)

In the interwar period¹¹, 5 high schools were opened, of which 2 vocational schools¹² and 3 gymnasiums (or lyceums), in addition to the existing pedagogical (teachers) high schools of Elbasan [1909], Berat [1913], and Shkodra [1917]. The greatest achievement of this period in the field of education is the standardization of education and the creation of national secular education.¹³

family name instead of the first name as is common in the royal style. For him, as for Prince Wilhelm I of Albania, the title Skanderbeg III was used (Prince Wilhelm I have proclaimed in 1914 also Skanderbeg II).

⁹ "Албания – географические, исторические и экономические данные" Тиранë 1964, p. 45.

¹⁰ Kwon also as the *Albanian-American School of Agriculture and Domestic Science* – was a high technical school founded in Kavaja on September 20, 1925, by Dr. Charles Telford Erickson and the Near East Foundation (chartered by the US government) with the prospect of fostering the creation soon of an Albanian Agricultural University. In 1939 staff and name changed after the Italian occupation. Fascist Italy replaced American personnel with Italian instructors and named the school Istituto Agrario "Arnaldo Mussolini" (after the late brother of Italy's Fascist dictator Benito Mussolini). Fascist Italy made no attempt to set up a higher agricultural institution.

¹¹ The interwar period – the period from 11 November 1918 to 1 September 1939), the end of the First World War to the beginning of the Second World War.

¹² Albanian Vocational School in Tirana and Albanian – American Agriculture Institute in Kavaja.

¹³ In 1934 Mirash Ivanaj (Minister of Education 1933-1935) introduced a new law on Education making elementary education obligatory. The main purpose of the Education Law (so-called Ivanaj' Law) was to create an integrated national, secular educational system in Albania.

After the Italian occupation in April 1939, the state of education in Albania did not change much. Nevertheless, by Decree No. 114 of the Council of Ministers of the Kingdom of Albania (1939-1943) under fascist Italy¹⁴, on April 8, 1940, the *Instituti Mbretnuer i Studimeve Shqiptare* (the Royal Institute of Albanian Studies) was established, which is considered the first scientific research institution in Albania as well as a forerunner of the Albanian Academy of Sciences¹⁵. The First Albanian Studies Convention¹⁶ held on April 9 – 13, 1940 formalized the establishment of the Institute of Albanian Studies by the initiative of the Ministry of Public Education and with the support of *Luogotenenza Generale*¹⁷ in Tirana.



Figure 1.3 The Circolo Scanderbeg (*left during construction; right an interior view*), 1940

¹⁴ Albania formally was named the Kingdom of Albania as an autonomous part of the Italian Empire after fascist occupation (*de facto* Italian protectorate) on Good Friday of 1939.

¹⁵ Albanian Academy of Sciences was established on October 10, 1972.

¹⁶ “Ma i pari Kuvend i Studimeve Shqiptare” (English: *The very first convention of Albanian studies*), 1940, 52

¹⁷ Luogotenenza generale, was *de facto* Office of Viceroy of Kingdom of Albania during fascist occupation. Luogotenente Generale (*literally*: Deputy General or Viceregent of Vittorio Emanuele III, King of Italia, Emperor of Ethiopia, and King of Albania) was Marchese Francesco Jacomoni di San Savino.

The first Chairman of the Institute of Albanian Studies was Mustafa Merlika-Kruja¹⁸ (from 1940 to 1941) then Albanian writer and linguist Ernest Koliqi¹⁹. In a solemn ceremony organized on September 28, 1942, the new Chairman Ernest Koliqi swore before the Viceroy of Albania declaring the change of the Institute's name to Royal Institute of Albanian Studies. In 1941 The Royal Institute of Albanian Studies organized into four commissions²⁰:



Figure 1.4 The Scanderbeg Foundation and the Royal Institute of Albanian Studies²¹ (1942)

1. Moral and historical sciences (Prof. Marcos Milone, Dhimitër Pasku²², Thoma Rollogai, Hasan Dosti²³, Kolë Dhimitri, Prof. G. Lorenzoni)

2. Physical mathematical and natural sciences (Father Mark Harapi²⁴, Nikolla Lako, Prof. Michele Parino, Dr.

Ali Mihali, Dr. Jano Basho, Dr. Hamdi Sulçebeku, etc.)

¹⁸ Mustafa Kruja (1887 –1958) – Albanian historian, publicist, linguist and politician. He was one of the signatories of the Declaration of Independence of Albania in 1912. In the Second World War, the quisling prime minister of Albania (1941-1943).

¹⁹ Ernest Koliqi (1903 –1975) - Albanian journalist, politician, translator, teacher, and writer. He is considered the founder of modern Albanian prose. During WWII, was Minister of Public Education (1939-1941), Senator of the Italian Senate (1939-1943), and Chairman of the Supreme Fascist Cooperative Council (1942-1943), which played the role of parliament in Albania under fascist Italy. As Minister of Public Education of the Kingdom of Albania, he sent 200 teachers to the newly opened Albanian schools in Kosovo. Head of Albanian Language Chair at La Sapienza University (Rome, Italy) from 1943 to 1975.

²⁰ AQSH, F.200, v.1940, D.10, fl.17

²¹ Source: AQSH (Central State Archive)

²² Dhimitër Pasko (1907 1967) – Albanian economist, writer, literary critic, and translator. Together with Ernest Koliqi, he is considered the founder of modern Albanian prose; in Albanian literature, he used the penname Mitrush Kuteli.

²³ Hasan Dosti (1895-1991) – Albanian lawyer and politician. Minister of Justice in the government of Mustafa Kruja, a senior leader of Balli Kombëtar (*National Front*). After World War II he would assist the Allies in their operations against the communist regime in Tirana.

²⁴ Mark Harapi (1899-1974) – Albanian Jesuit priest. He studied theology and philosophy in Innsbruck, Tyrol. Professor of the Albanian language at the Pontifical Seminary and Saverian College. Sentenced to 20 years in prison by the communist regime.

3. Language and literature (Father Gjergj Fishta²⁵, Mons. Vinçens Prendushi²⁶, Sotir Kolea, Francesco Ercole)
4. Art (Odhise Paskali²⁷, Father Lorenzo Tardo, Prof. Kristo Kono)



Figure 1.5 A group of scholars at the Royal Institute of Albanian Studies, 1942. (Sitting from right to left: Ernest Koliqi, Asdreni, Father Gjergj Fishta, Lasgush Poradeci)

The Royal Institute of Albanian Studies was one of two sections of the Circolo "Scanderbeg." Although short-lived (1940-1944) its activity marks:

- The beginning of serious and organized work in the study of the Albanian language and history
- The creation of the first Albanian photographic and cartographic archive.
- The establishment of the Museum of Natural Sciences.

²⁵ Father Gjergj Fishta (1871-1940) – Albanian Franciscan friar, teacher, writer, translator. Chairman of the Commission for drafting the Albanian alphabet in the Congress of Manastir (now Bitola) in 1908, member of the Albanian delegation at the Versailles Peace Conference (1919), vice-speaker of the Albanian Parliament in 1921, and representative of the Albanian state in the Balkan conferences during the 1930s. After the Italian occupation, he was elected a member of the Royal Academy of Italy. He is considered one of the most influential Albanian writers of the 20th century, because of his epic masterpiece *Lahuta e Malcís* (*The Highland Lute*).

²⁶ Vinçenc Prennushi (1885-1949) – Albanian roman catholic priest of the Franciscan Order Friars Minor, Archbishop of Durrës 1940 -1949, the Catholic Primate of Albania 1946-1949, well-known poet, and writer. Died of inhuman tortures in Durrës prison in 1949. He was beatified in 2016 by Pope Francis.

²⁷ Odhise Paskali (1903 - 1985) – Albanian sculptor. He is considered the founder of Albanian sculpture and one of the most important personalities of Albanian art.

- the publication for the first time of an Atlas of the Albanian Language²⁸.

Immediately after the Second World War, the new regime drafted an Education System Reform (August 17, 1946) as part of the social, economic, and ideological transformation it committed to undertake.

The first postsecondary school in Albania – based on the Education Reform launched in 1946 – was the 2-year curricula Pedagogical (Teacher's) Institute, which began its activity on December 20, 1946. The 2-years Higher Pedagogical Institute included the following curricula²⁹: Albanian language and literature; history; geography; biology; physics and mathematics. What was more important, the establishment of this institute was seen by the new Albanian government as:

*"...an effort that could soon lead to the opening of the first university"*³⁰,

and a way to educate the younger generation

*"...with a spirit of peace, true patriotism and love for the Soviet Union, Stalin, and our Party."*³¹

Its Regulation specified:

"The Pedagogical Institute of Tirana is a school of higher studies, with a university character, which prepares and produces teachers for the elementary schools of the People's Republic of Albania"

Prof. Dhimitër Shuteriqi was appointed director of the 2-year Higher Pedagogical Institute.

In 1946 was re-established the Institute of Study (a continuation of the Royal Institute of Albanian Studies), and in 1947, based on it was established the Institute of Science, as the

²⁸ "L'Albania indipendente e le relazioni italo-albanesi (1912-2012)". Edizioni Nuova Cultura Roma, 2013, page 194

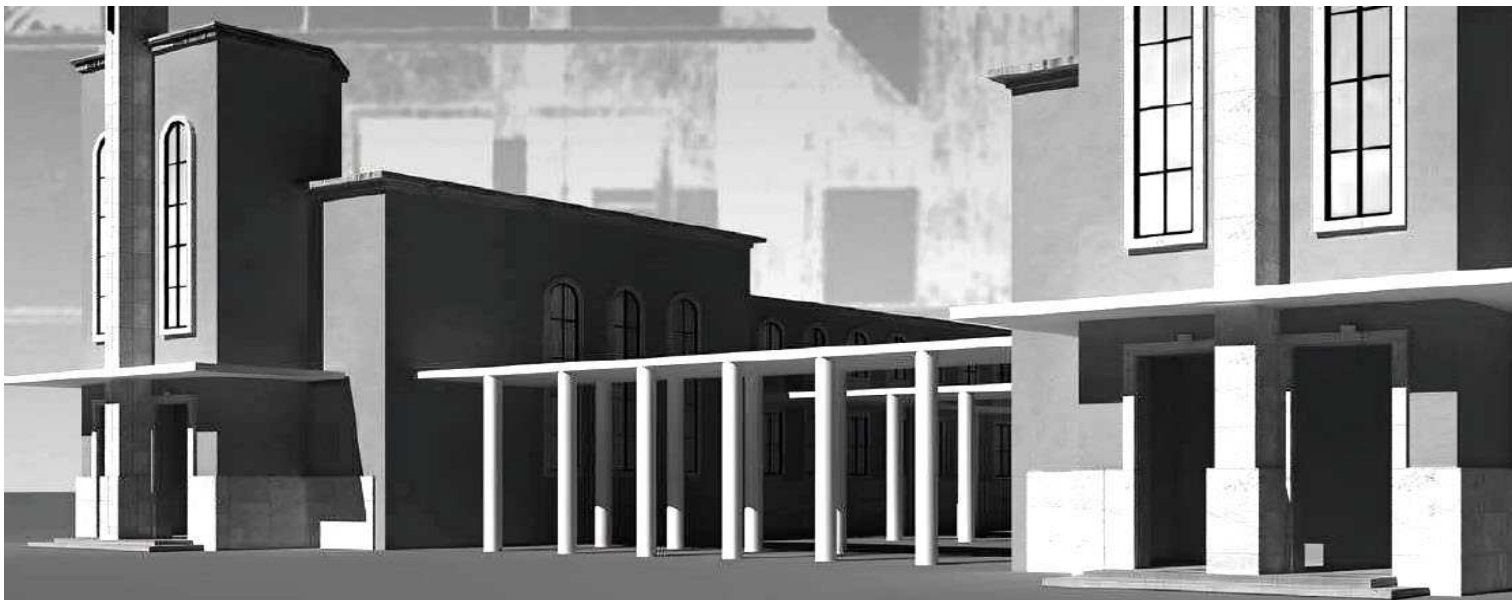
²⁹ AQSH, Fondi 1011, viti 1947, dosja 33 page 1-10; Kambo E., "Arsimi në Shqipëri (1946-1960)". Edition of Academy of Sciences of Albania, Tirana 2005, page 149.

³⁰ Newspaper "Bashkimi", on September 29, 1946

³¹ Samsuri Dh., General Inspector of Albanian Secondary Schools, Speech on January 7, 1952, reported in "Pragmatic Approach to Culture" News from Behind the Iron Curtain, I, ii (February 1952), page 37.

central Research Institute in the People's Republic of Albania³² (PRA). Prof. Kol Paparisto was appointed Head of the Institute of Sciences.

This institute also included the National Library³³ (established in 1920), the State Archive (established in 1947), the Archaeological-Ethnographic Museum (1948), the Museum of Natural Sciences³⁴ (1943), the Hydrometeorological Service (1949), as well as the State Chemical Laboratory (1946).



³² The official name of Albania from 1946 to 1976, like all the "people's republics" of the countries of Eastern Europe.

³³ The National Library of Albania (*Albanian*: Biblioteka Kombëtare e Shqipërisë) was founded in 1920 and inaugurated on December 10, 1922. The fund of the Albanian Literary Commission (*Albanian*: Komisia (Komisioni) i Letrave Shqipe) (1916-18), and of the Association "Vllaznia" (created in Shkodra occupied by the Austro-Hungarians) served as its initial fund (3,000 volumes). From 6,000 titles in 1922, today National Library has a fund of 1,035,885 in books, periodicals, maps, atlases, micro-films, etc. Head of the National Library during the Albanian Kingdom (1928-39) was Mr. Sotir Kolea.

³⁴ The Museum of Natural Sciences was established by the decision of the Royal Institute of Albanian Studies on February 18, 1943, at its IX meeting. The museum started its activity after the Second World War, in 1948. Today the Museum bears the name of its initiator and founder, Prof. Sabiha Kasimati, (biologist and scientist) executed without trial by the communist regime on February 26, 1951.



1.2 HISTORY OF ENGINEERING INDUSTRY IN ALBANIA

IN THE BEGINNING...

DURING THE Industrial Revolution in Europe and United States in the period from 1760 to 1840 were developed³⁵:

- Mechanized factory system in the textile industry (by steam or hydropower).
- Steam engine.
- Innovations in metallurgy and the engineering industry.
- Production of machine tools.

³⁵ Rosen, W. "The Most Powerful Idea in the World: A Story of Steam, Industry, and Invention" University of Chicago Press. USA 2012. ISBN 978-0-226-72634-2.

The first attempt³⁶ to mechanize industrial production in the areas inhabited by Albanians³⁷ (under the Ottoman Empire) was the construction of a silk spinning factory in the 1860s in the city of Shkodra. At the end of the 19th and the beginning of the 20th century, foreign investment in industry appeared in territories in what is now Albania, but they were limited to mining and forest exploitation. Some of them were³⁸:

- 1875 The British company "Mayer's" in Selenitza Bitumen Mine;
- 1891 The Selenitza mine concession was bought by French company "*Société des bitumes de Selenitza*"³⁹;
- 1904 The Italian company "Filipo e Berberis" dealt with the exploitation of the forests in the Durrësi region;
- 1910 The Italian company " *Vismara* " dealt with the exploitation of the forests in the region of Mirdita and have the concession of a decauville line for the transport of timber from the forests of Mirdita to Shengjin⁴⁰.

The largest industrial unit in Albania was the bitumen mine in Selenica (there were up to 500 workers)⁴¹. The Declaration of Independence in 1912 found Albania with a total of 51 industrial factories, which were mainly food industry factories (see table 1.1).

Although with a relatively advanced technique, all these factories had without exception a small production capacity and a limited number of workers (3-15 employees and in some cases over 15 employees). The total number of employees at the beginning of the

³⁶ In the 1860s, a merchant from Shkodra, F. Parruca, brought from Italy steam spinning machines for processing silk threads. The real silk-spinning company (with over 10 employees) was opened in Shkodra after 1870.

³⁷ The four Ottoman vilayets with significant ethnic Albanian populations were: Vilayet of Kosovo, Vilayet of Shkodra, Vilayet of Monastir, and Vilayet of Ioannina.

³⁸ Albania was backward (too late) in the process of industrialization, enough to mention that in the same period West European countries and the USA were already in the Second Industrial Revolution (1870 – 1914)

³⁹ *English*: Selenitza Bitumen Company. Selenitza is a town in the South of Albania (today within Vlore County). Selenitza Bitumen Co. was a joint concession company of the *Société Française de Mines de Bitume* (France) and the Ottoman Bank (Ottoman Empire). Production of 6,000 tons of asphalt per year was exported to France, Austria-Hungary, and Germany.

⁴⁰ Sakja R., "*Le fonti per lo studio delle relazioni fra Italia e Albania in ambito energetico dal 1900 al 1939 negli archivi italiani e albanesi*" PhD Thesis Università di Roma Sapienza, 2018, page

⁴¹ Caselli G. P., Thoma G., "*Lo storia economica albanese 1912-1939 e lo stabilirsi dell'egemonia italiana*" Università di Modena Italy, 2000, page 32.

20th century was estimated to be several hundred workers.⁴² In more detail the activity of industrial enterprises was:

Table 1.1 Mechanized industrial enterprises in the Albanian territories in 1912⁴³

Food processing	Soap	Leather	Textiles	Tobacco	Printing house	Mechanical Saws
31	2	2	1	3	5	7

- the weaving of silk and steam motor spinning, Shkodër.
- flour mills, Korçë, Shkodër, Pristina, Berat, Durrës.
- several factories of production of soap, Shkoder, Elbasan, etc.
- factories of noodles and cigarettes, Shkodër, Vlore, Elbasan.
- olive oil factories in Fier, Vlore, Shkodër.
- grinding mills; mechanical saws, Vlore, Lushnje, Durrës, Peja, etc.
- the tanning leather factories (tanneries), Gjirokastër, Shkoder

After the First World War, independent Albania was effectively placed under the economic and political control of Italy, by the First⁴⁴ and Second⁴⁵ Treaty of Tirana (in 1926 and 1927 respectively) signed between the Republic of Albania and Fascist Italy.

The Society for Economic Development of Albania (SVEA)⁴⁶ established earlier by the agreement between the Italian and Albanian governments on March 3, 1925, (to be the guarantee of the newly established Albanian National Bank) began to give loans to the Albanian government for the development of agriculture, land reclamation projects, transport, and public works.

⁴² Frashëri K., "Historia e Shqipërisë" (History of Albania), Tirana 1964

⁴³ Albania declared itself independent at the end of 1912, therefore the figures in the table also include the Albanian cities that were left outside the independent Albanian state by the Treaty of London on May 1913 and the Treaty of Bucharest on August 8, 1913. After 1912, only 34 industrial units remained in the territory of the independent state of Albania (18 motor mills, 3 oil factories, 1 soap, 1 leather, 1 textile, 1 wool processing, 1 tobacco, and 1 noodle factory, 1 printing press, 4 Sawmills. Excluding woodworking, brick and tile factories, and lime kilns). Roselli A., *Italy and Albania* cit., page 18.

⁴⁴ Italo-Albanian Treaty of Peace and Security (Albanian: *Pakti Italo-Shqiptar i Miqësisë dhe i Sigurimit*) 27.11.1926. This Treaty made Italy the protector of "...political, juridical, and territorial status quo of Albania"

⁴⁵ Defense Alliance Treaty (Albanian: *Pakti i Aleancës Mbrojtëse*) 1927.

⁴⁶ SVEA – Società per lo Sviluppo Economico dell'Albania (English: Society for Economic Development of Albania). In 1935 SVEA has changed the name to SOFINES – *Società Finanziamenti Esteri* (Society of Financing in Foreign Countries).



Figure 1.6 Central pumping wheel AIPA (Kuçova, 1938)



Figure 1.7 Oil wells of AIPA⁴⁷ (Kuçova, Petrolia 1943)

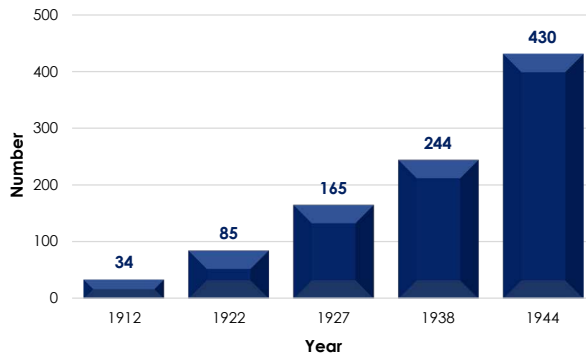


Chart 1.1 Number of industrial enterprises 1912–44



Figure 1.8 A.I.P.A. oil field in Petrolia⁴⁸ (Kuçovë) 1939

⁴⁷ A.I.P.A. – Agenzia Italiana Petroli Albania (English: Italian Petrol Company Albania) was founded in 1926 as an autonomously managed entity within Italian State Railways (Ferrovie dello Stato), a concession company for the exploration and exploitation of oil in Kuçova along the river Devolli. In 1942 AIPA came under the control of A.G.I.P. (Azienda Generale Italiana Petroli). In 1938 oil production in Albania met about 10% and during the war up to 30% of Fascist Italy's national demand for oil. For a brief period (1943–44), after surrendering of fascist Italy on September 8, 1943, the exploitation of oil in Albania was managed by Nazi Germany companies: *Mineralöl kompanie* (Petroleum Company) and *Albanien Öl GmbH* (Albanian Petroleum).

⁴⁸ The town of Kuçova was renamed *Petrolia – City of Oil*, by Fascist Italy dictator (*il Duce*) Mussolini (In addition to Kuçova, *il Duce* changed the name of Saranda to *Porto Edda* in honor of his eldest daughter, and the city of Shengjin to *San Giovanni di Medua*).

In the years 1934-1938, these investments had an impact on various sectors of the economy and led to the growth of Albania's exports. Most of the technicians in companies operating in Albania were Italian citizens. In 1938, exports were 4 times more than in 1928⁴⁹, although the rate of concentration of workers in the industry in 1938 doubled compared to 1928⁵⁰, nevertheless, except for mining companies, about half of the industrial enterprises were small with less than 10 employees.⁵¹

Table 1.2 Industrial enterprises in 1927⁵²

Number of employees	Number of enterprises
1 – 3	72
4 – 10	77
11 – 24	10
Over 25	6

Albania in 1927 had 165 industrial enterprises and about 9,000 handicraft workshops. The 12% rise in GDP in real terms between 1927 and 1938 in Albania was attributed predominantly to a few relatively large enterprises:

- Five companies for oil exploration and exploitation A.I.P.A. (Italy), D'Arcy Exploration Company Ltd (a subsidiary of the Anglo-Persian Oil Company⁵³, British Empire), Standard Oil (USA), Herbert Rushton Group (British Empire), and Syndicat d'Étude Franco-Albanais⁵⁴ (France).
- Four companies for mineral mining, of which three are foreign-owned, (bitumen, copper, iron): Italian SIMSA⁵⁵ and SIGMA⁵⁶ in the exploitation of bitumen and iron; 1 Yugoslav company for the exploitation of copper in the Puka region and Puka SISM.

⁴⁹ "100 vjet: Ekonomia e kohës së Zogut dhe Luftës II Botërore" Revista Monitor, Tiranë 2012.

⁵⁰ Ibid.

⁵¹ Banja H., Toçi B., "Socialist Albania in the path of industrialization" Tirana, 1979. page 26

⁵² "Historia e Shqipërisë" Vol. 2, Tirana 1965, page 559

⁵³ Anglo-Persian Oil Company – was a British company founded in 1909 following the discovery of a large oil field in Iran (Persia). The British government purchased 51% of the company in 1914. In 1935 APOC was renamed the "Anglo-Iranian Oil Company" (AIOC) and in 1954 British Petroleum (BP). In 1925 APOC obtained from the Albanian Parliament, oil concessions in Patos and Kuçova but later was forced for sharing Albanian oil prospecting rights with the Italian government (with the state company Ferrovie dello Stato). The exploration of oil in the Patos region was continued by D'Arcy Exploration Co, Ltd (the exploratory branch of the APOC).

⁵⁴ Franco-Albanian Study Syndicate.

⁵⁵ Società Italiana di Miniere di Selenizza Albania – Italian Society of Mines of Selenitza. The company had a concession from the Albanian government until 1960 but was not recognized by the government of the People's Republic of Albania after

- 1 cement factory in Shkoder (Italy)⁵⁷,
- 2 locally owned, for coal mining (Ali Baxhe & Co, M.L. Butka & Soc., and Kole Kuqali & Co)⁵⁸

and to the mobilization of the Italian capital for a range of enterprises through the *Società per lo Sviluppo Economico dell'Albania* (SVEA), founded in 1925.⁵⁹ Industrialization turns to be the main objective of the government during the period of the Albanian Kingdom (1928-1939). The industrial sector of the Albanian economy, including handicraft production, provided 18%⁶⁰ of the national income (the contribution of the industrial sector without handicrafts was only 3.8-4.4%, most of which came from the mining industry).



Figure 1.9 Copper Mine, Rubik (Courtesy of Giuseppe Massani 1940 and Willibald Kollegger 1941)

In the 1930s Italian companies that received long-term concessions for the exploration and exploitation of mineral reserves of Albania were:

WWII. "Lo storia economica albanese 1912-1939 e lo stabilirsi dell' egemonia italiana" Caselli G. P., Thoma G., Università di Modena Italy, 2000. page 28.

⁵⁶ **Sindacato Italiano Giacimenti Minerari Albania** – Italian Union of Mining Fields Albania

⁵⁷ "Portland Cimento Shkodra" and after 1939 Cementificio "Scutari" Società Anonime.

⁵⁸ *Ibid.*, page 29

⁵⁹ In the period 1925-1938 SVEA granted to the Albanian Government almost interest-free loans in total, as much as 1.8 billion lire (or 296 million gold francs, worth about US\$ 1.2 billion today) according to Asma, Series Political Affairs 1931-1945, Albania, the envelope 81 "the Minister of Foreign Affairs, Ciano, Speech before the Chamber of Deputies held on 15.4.1939". Another source claims that SVEA granted around 1.1 billion gold francs loans in total (worth about US\$ 4,2 billion today) Caselli G. P., Thoma G., "Lo storia economica albanese 1912-1939 e lo stabilirsi dell' egemonia italiana" Università di Modena Italy, 2000 page 42.

⁶⁰ Н. Смирнова "История Албании в XX веке" Наука, Москва, 2003, page 169.

SAMIA⁶¹ in the Lezha, Puka and Rubik copper and sulfur mines,

AMMI⁶² for the exploration and exploitation of the chromium in Pogradec, Kukës, and Tropoje,

FERRALBA⁶³ for exploration of iron,

ACAI⁶⁴ for the exploitation of coal in Priskë, Memaliaj, Drenove, and Radokal.

AMMI and the **Montecatini group**⁶⁵ the exploration and exploitation of chromium⁶⁶ in Pogradec, Kukes, and Tropoje. Also, exploration of non-ferrous metals and other minerals.

Società Italiana delle Miniere di Selenica Albania (SIMSA) and **AIPA** – the exploration and exploitation of oil, respectively in Selenica (Vlora) and Devoll river (Berat).

Meanwhile, “**Kraba**” and “**Mborje-Drenove**” were 2 Albanian companies, that received concessions for the exploitation of the lignite in Krraba (near Tirana) and Korça region respectively.

Table 1.3 Structure of the industrial sector (1938)⁶⁷

Industrial sector	No. Enterprises	% to Total	Workers	% to Total	Workers/enterprises
Food processing	124	51%	1374	18%	11
Textile	32	13%	764	10%	24
Construction	36	15%	810	11%	23
Electric Power	7	3%	154	2%	22
Mining	6	2%	4030	54%	672
Other	39	16%	303	4%	8
Total	244	100	7435	100	30

Table 1.4 Electricity and coal production in 1938

Country	Albania	Italy	Yugoslavia	Greece
Electricity (kWh per capita)	9	357	75	38
Coal (kg per capita)	4	350	437	500

⁶¹ Società Anonima Mineraria Italo-Albanese –Italian Albanian Mining Company.

⁶² Aziende Minerali Metallici Italiani – Italian Metal Minerals Companies.

⁶³ Società Anonima Ferro-Albania – Iron Company – Albania.

⁶⁴ Azienda Carboni Italiani – Italian Coal Company.

⁶⁵ Luku E., “A Viewpoint on the Italian Diplomacy Towards the Albanian Monarchy (1928-1939)”. Mediterranean Journal of Social Sciences. 2013, MCSER Publishing, Rome-Italy.

⁶⁶ The production of chromium (as Cr₂O₃) in Albania in 1938 was 2,600 tons, while in 1939 it increased to 11,300 tons.

⁶⁷ Source: “The Economic History of Eastern Europe” 1985.

Of course, the largest company was AIPA which was engaged in oil extraction along the river Devoll (Kuçova) and in the region of Vlora. After 1935 AIPA received part of the Anglo-Persian Oil concession in Fier (Patos). Oil production in Albania increased from 9,200 tons in 1929 to over 126,000 tons in 1938 and reached 300,000 tons in 1942, thanks to 330 oil wells set up by AIPA (in 1942 there were 400-500 wells). For oil production, Albania in 1942 was ranked 25th in the world⁶⁸, but the cost of extracting and processing Albanian oil was 2.5 times higher than in Iran or Iraq. All production was exported to Italy and refined in Rosma Refinery of Fiume and from 1938 in Bari, although the concession contract initially forced the Italian company to set up a refinery with a capacity of 50,000 tons in Albania. AIPA found it more appropriate to build an oil underground pipeline about 75 kilometers to the port of Vlora (Uji i Ftohtë) and then transport it by tanker ships to the Bari Refinery (ANIC⁶⁹) set up specifically for the processing of Albanian oil with high sulfur content, with technology⁷⁰ suitable for it (hydrogenation).

In all the cities of Albania, even the smallest ones, during the reign of King Zog I, with the financial help of Fascist Italy, power plants or hydropower plants and water supply systems were built. One of the first hydropower plants was the Vithkuq HPP 500 kW hours, near Korça built-in 1936. In 1938 Albania had 13 power plants built by the companies SESA⁷¹ and SITA⁷², but electricity per capita was still the lowest in the region (see Table 1.4). Albania produced 9,400⁷³ MWh per year of which industry consumed only 30% (the rest was consumed for lighting). The largest production was in Shkodra and Tirana TPPs (both owned by SITA)⁷⁴.

⁶⁸ "Foreign Minerals Survey. Mineral Resources of Albania" Volume 1 No.3, by United States Bureau of Mines, January 1944, page 18.

⁶⁹ Azienda Nazionale Idrogenazione Combustibili – National Fuel Hydrogenation Company – ANIC, born from the partnership between AGIP, AIPA and Montecatini

⁷⁰ If 13% of gasoline could be obtained with the primary distillation of crude oil, with hydrogenation it could reach 80%.

⁷¹ SESA – Shoqëri Elektrike Shqiptare Anonime (English Albanian Electric Joint Stock Company), a subsidiary of SEIA (Società Elettrica Italo-Albanese) established in 1927 with joint Italian-Albanian capital.

⁷² SITA - Shoqëria Industriale Tregtare Anonime (English Industrial Trade Joint Stock Company). One of the first joint stock companies, created in 1927 in Tirana by a group of Albanian capitalists. SITA developed industrial and commercial activity. It obtained a concession for the table salt production and set up its network in different centers of Albania for the sale of salt. It was also involved in the production and distribution of electricity. In 1936-1937 SITA tried to establish a commercial bank. The SITA company was nationalized in March 1946.

⁷³ "Historia e Shqipërisë" Vol. 2, Tirana 1965, page 559

⁷⁴ Selenica, T. "Shqipëria në vitin 1937, 25 – vjet vetëqeverim", Vol. 2, Tirana, 1938, page 534.

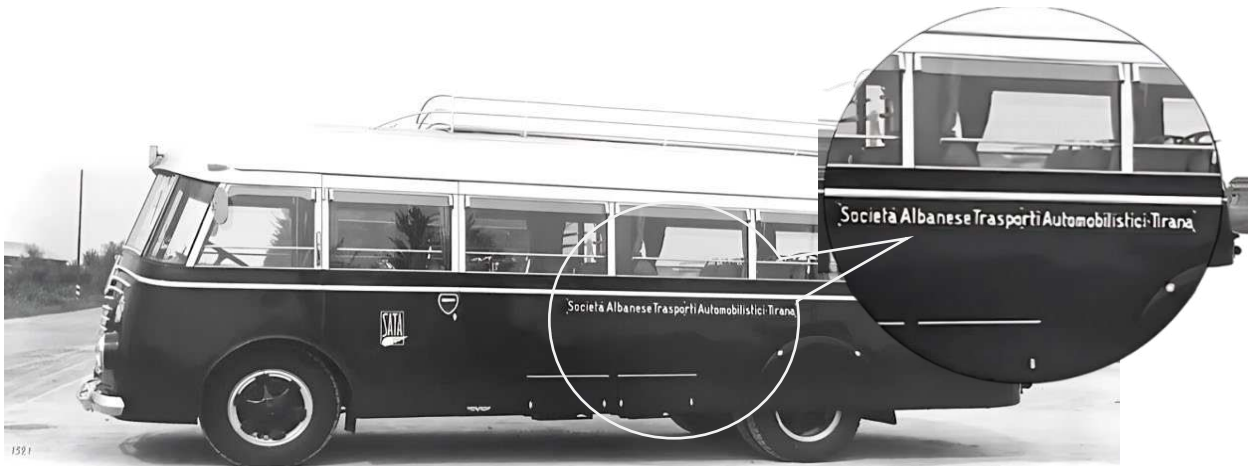


Figure 1.10 Interurban bus fleet of SATA⁷⁵ in Albania (FIAT 626 RNL)

During the Second World War, the colonization of Albania by fascist Italy⁷⁶ reached its peak with the adoption of an economic war plan, that focused only on the exploitation of Albania's rich mineral resources⁷⁷. After the occupation of the Albanian Kingdom by fascist Italy on April 7, 1939, the Italian government paid more attention to the extraction of natural resources than to industrialization as such.

In 1944, the number of industrial enterprises reached 430 (from only 244 in 1938, 165 in 1927, 85⁷⁸ in 1922, and 34 in the territory of the Albanian state in 1912⁷⁹). At the end of World War II, Albania had about 1,500 km of roads (of which in 1923 there were only 695

⁷⁵ SATA – Società Albanese Trasporti Automobilistici (English: Albanian Auto Transportation Company). The company had urban and interurban lines. For the first time in Albania, in Tirana, on February 15, 1940, 3 SATA urban transport lines were inaugurated.

⁷⁶ Italy invaded Albania on April 7, 1939. 22,000 soldiers, 64 artillery guns, 125 light tanks, and 860 vehicles participated in the military operation "**Oltre Mare Tirana**" ("Overseas Tirana").

⁷⁷ Kopsidis M., Ivanov M, "Modern Industry in Southeast Europe 1945-2007. From rapid industrialization to deindustrialization" Leibniz-Institut für Ost- und Südosteuropaforschung, Regensburg, Germany, 2013, page 36

⁷⁸ I. Fishta & Th. Kareco, "Prona private në Shqipëri 1924-1944" (Tirana, Dituria, 1996), page 17.

⁷⁹ A. Teichova, "Industry", in M. C. Kaser & E. A. Radice (eds), *Economic History of Eastern Europe 1919-1975*, vol. 1 (Oxford, Oxford University Press, 1985), page 314

km of un-asphalted roads), several hundred bridges, the port of Durrës⁸⁰ (a modern fully equipped seaport, which was built mostly during the occupation), the almost completed Durrës-Elbasan railway⁸¹, and a complete map of the mineral reserves. However, it should not be forgotten that the Albanian population suffered terribly during WWII. The whole country became a theater of war and as a result, had large-scale destruction of newly built Italian industrial and transport infrastructure.⁸²

In 1944 the industrial sector provided 9.8% of the national income (compare with only 4.4% in 1939). In total, the number of workers in the industrial sector in 1928 was 3,000 while in 1938 more than 7,000 (see Table 1.3).⁸³ Until 1939 the largest industrial centers in Albania were the cities of Shkodra and Korça. These cities failed to hold such a position after 1945, mainly because the capital of Albania, Tirana, was designed not only as the political center but also as the economic center of the country.

ENGINEERING INDUSTRY IN ALBANIA (1945–1990)

The period from 1945 to 1990 coincides with the establishment of a communist regime with a Stalinist matrix in Albania. In the first peacetime year in 1945 industrial production was already back to that of 1939, once supplies were available more normally, thanks to UNRRA⁸⁴, Yugoslavia, and the USSR⁸⁵. The economy was characterized by Soviet-style centralized planning and forced industrialization (see Table 1.5).

⁸⁰ "The port of Durres was expanded to the extent that upon its completion ships larger than usual merchant ships could be anchored" Fischer B., *"King Zog and the Struggle for Stability in Albania"*. New York: Columbia University Press, 1984. p. 104.

⁸¹ The other railway line was the 39 km decauville, which connected Selenica with Vlora built by SIMSA to transport bitumen and asphalt to the port of Vlora, while the Durrës-Elbasan railway was under construction and 2/3 of its length was completed. "Foreign Minerals Survey. *Mineral Resources of Albania*" Volume 1 No.3, by United States Bureau of Mines, January 1944, page 4.

⁸² Kaser M., *Economic system*, 1993 page 299

⁸³ "[...], Albania ended the war with more industrial assets (especially in mining) and better roads than it had had in 1939..." Kaser M., "Economic Continuities in Albania's Turbulent History" *Europe-Asia Studies*, Jun. 2001, Vol. 53, No. 4 (Jun. 2001), p. 628. For example, the production of oil in Albania was doubled (production of oil in 1942 was 1,5 million barrels (1 barrel = 42 gallons) per year, compared with 752,000 barrels/year in 1938

⁸⁴ UNRRA – United Nations Relief and Rehabilitation Administration (1943-48), was an international relief agency, largely dominated by the United States. Its purpose was to "plan, coordinate, administer or arrange for the administration of measures for the relief of victims of war, etc. "Albania threatened by famine received \$US 27 million in aid in 1947 directly or indirectly from UNRRA." Kaser M., "Economic Continuities in Albania's Turbulent History" *Europe-Asia Studies*, Jun. 2001, Vol. 53, No. 4 (Jun. 2001), page 628

Superficially, it may seem an absurd by-product driven by Communist ideology for a tiny country like Albania to embark on an industrialization program, particularly a plan which stresses heavy industry. However, the existence of abundant natural resources (mineral resources, oil), and a potentially large amount of hydroelectric power generation capacity) were the decisive factors that make the focus on heavy industry development not only plausible but logical⁸⁶.



Figure 1.11 "Enver" Mechanical Plant 1950⁸⁷ (left). Soviet specialists visiting the Plant, September 1952 (right)⁸⁸.

In the rapid industrialization of the economy, Albania relied to a large extent on foreign financial aid and know-how (USSR⁸⁹, members of CMEA⁹⁰, and the People's Republic of

⁸⁵ Albania needed to import \$US 26 million worth of goods, while in 1947 its export earnings amounted to only \$US 2.4 million. UNRRA covered directly \$US6.2 million, while the rest was covered through Yugoslavia. Also, the USSR passed the aid dedicated to Albania through Yugoslavia.

⁸⁶ O'Donnell S. James. "A Coming of Age: Albania under Enver Hoxha", ISBN 0-88033-415-0. Columbia University Press, New York 1999, page152.

⁸⁷ Mr. Halil Kraja, in the photo, a worker at the Plant, was a "Stakhanovite", who toured various cities of Albania to promote "Soviet methods of working". Source: ATA – Albanian Telegraphic Agency.

⁸⁸ Source: ATSH (Albanian Telegraphic Agency)

⁸⁹ URSS (1922 – 1991) – Union of Socialist Soviet Republics (ex-Russian Empire).

⁹⁰ Official name: Совет экономической взаимопомощи (СЭВ) in English Council for Mutual Economic Assistance (Comecon)) – was an economic organization from January 1949 to January 1991 under the leadership of the Soviet Union that

China⁹¹). Thanks to such financial support, the Albanian economy was experiencing a blooming, especially in the industry and mining sectors.⁹²



Figure 1.12 The oil refinery, Cërrik near Elbasan, in the 1950s

A reliable estimate of loans taken from Albania (which were of 2% interest and were often returned in free grants) in the mid-1950s was in the range of 900 million to 1 billion rubles. Military aid was provided free of charge by the Soviet Union; the Albanian government paid only for army salaries and food and partly for clothing. To understand the importance of the role of the Soviet Union in the development of post-war Albania, it is enough to keep in mind that Soviet equipment for the Albanian oil industry accounted for 95% of all plants, 65% of agricultural equipment, 90% of vehicles and 82% of agricultural tractors. Some of the investments in the 1950s were: the HPP "V.I. Lenin"; the HPP "Karl Marx" on the river Mat; the Oil processing refinery in Cërrik; the Cement Factory in Vlora, the "Stalin" Textile Plant in Tirana, the Woodworking Factory "Nako Spiru" in Elbasan, the "8 November" Sugar Factory in Maliq, the Tobacco Factory in Shkodra, etc. These enterprises formed the

initially comprised Bulgaria, Czechoslovakia, Hungary, Poland, Romania, and the USSR. The People's Republic of Albania and the German Democratic Republic joined Comecon shortly afterward. This organization was somehow a response to the European Recovery Plan or so-called Marshal Plan of the United States. The People's Republic of Albania was not one of the founder countries. Comecon added Albania to its ranks as a full member in February 1949. Following the Soviet-Albania split, Albania stops participating in activities of Comecon in 1961, but formally withdrew in 1987.

⁹¹ People's Republic of China – proclaimed on October 1, 1949, following the victory of Mao Zedong's communists in the Chinese Civil War over the Nationalist Government led by Generalissimo Chiang Kai-shek.

⁹² Griffith W. E., "Albania and Sino-Soviet Rift", Massachusetts, The MIT Press 1964

new industrial base of post-war Albania. Due to its backwardness, the Albanian economy did not have neither the economic capacity nor know-how to carry out such an accelerated industrialization plan and could not develop so rapidly without Soviet assistance.



Figure 1.13. Hydro Power Plant "Lenin" Selitë, Tirana 1948⁹³

Nevertheless, in a tiny poorly developed country like Albania, two key communist targets of heavy industry-based industrialization and simultaneously implementation of economic autarchy (or Maoist "self-reliance" translated in Albanian "to stand on your own feet") to safeguard national independence and uphold the purity of Marxist doctrine were irreconcilable contradictions.⁹⁴ The first results of this economic policy were encouraging. In the period 1950 to 1960, the People's Republic of Albania increased industrial production by 4 times, compared to 1938⁹⁵. The branches of industry that developed were the extraction

⁹³ The Hydro Power Central "Lenin" in Selitë provided Tirana with both electricity and water supply. HPP "Lenin" was one of the first 3 Soviet investments in the People's Republic of Albania.

⁹⁴ Kopsidis M., Ivanov M., *"Modern Industry in Southeast Europe 1945-2007. From rapid industrialization to deindustrialization"* Regensburg, Germany, 2013, p. 37

⁹⁵ From 1947 to 1961 soft loans and financial aid of the USSR to the People's Republic of Albania are worth more than \$2.2 billion of today's dollars (not counting the financial aid of other Eastern Bloc countries). Whereas financial aid of the People's Republic of China to Albania from 1954 to 1975 was worth about 18 billion today's dollars (excluding military aid and military supply, which the People's Republic of China offered free of charge).

of oil and minerals, the reconstruction of roads and bridges and the beginning of the construction of the railway network, the textile and food industry, etc.⁹⁶

Table 1.5 Industrial growth rate (1951-1970)⁹⁷

Country	Average growth rate
People's Republic of Albania	14.7
World	7
Developed countries	5.3
Eastern Europe, communist bloc	10

Government statistics claimed that in 1960 Albania was an industrial-agricultural country (according to western estimates industrial production in Albania surpassed that of agriculture only in 1970), i.e., over 50% of Net Material Product⁹⁸ belonged to the industrial sector (see Table 1.7).

Table 1.6 Rate of economic growth (%) in southeast Europe (average annual rate)⁹⁹

Country	Period	
	1955-1971	1971-1990
Bulgaria	8.3	2.8
Romania	7.8	3.5
Yugoslavia	9.2	3.2
Albania	10.7	4.7
Greece	8.2	1.9

The industrialization of Albania, in this period, has had the highest pace among the countries of Southeast Europe. The average annual economic growth rate especially in the period 1955-1971 was about 11%, while for the same period the annual growth rate of the industrial sector was 14.7%. In the industrial sector, the highest growth rate in the period

⁹⁶ "100 vjet: Ekonomia shqiptare gjatë regjimit komunist (1945-1990)", Journal "Monitor", Tirana, 28.11.2012.

⁹⁷ Journal "Мировая экономика и международные отношения" (edited by the Soviet (Russian) Institute of World Economy and International Relations) No. 1 (1973), pp 151, 156.

⁹⁸ Net Material Product – the main macroeconomic indicator used in former socialist countries. The equivalent of GDP (Gross Domestic Product). NMP is calculated for the material production sectors only and excludes most of the service sectors, which are part of GDP. (NMP was approximately 70-75% of the value of GDP)

⁹⁹Kopsidis M., Ivanov M, "Modern Industry in Southeast Europe 1945-2007. From rapid industrialization to deindustrialization" Regensburg, Germany, 2013, p. 39.

1965-1971 had chemical, engineering (mechanical) industry, and electricity production with 47.5%, 25.5%, and 21%, respectively¹⁰⁰.

Table 1.7 Annual growth rate*) in total and by each sector of the economy

<i>Fyp</i> ¹⁰¹	51-55/ 56-60	56-60/ 61-65	61-65/ 66-70	66-70/ 71-75	71-75/ 76-80	76-80/ 81-85	81-85/ 86-90
NMP**)	7.4	7.6	7.5	7.5	3.5	3.0	1.2
Agriculture	1.3	4.3	3.6	3.5	3.5	1.7	0.5
Industry	15.3	12.3	10.7	12.5	6.6	4.3	2.4
Construction	-	10.4	6.6	6.9	3.0	4.8	-1.2
Services	-	10.3	14.3	8.4	-2.0	1.9	0.7

*) aggregate value for each Five Years Plan (FYP) at constant 1986 prices

**) Net Material Product

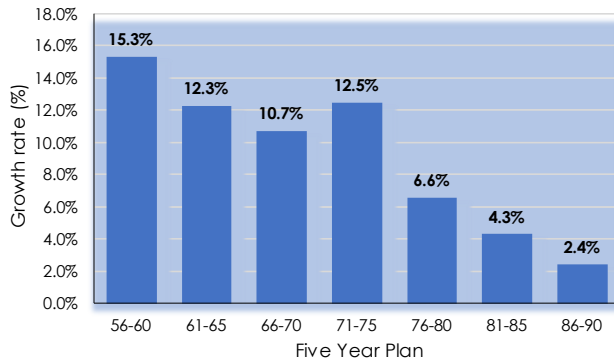


Chart 1.2. Industrial sector growth rate 1955-1990

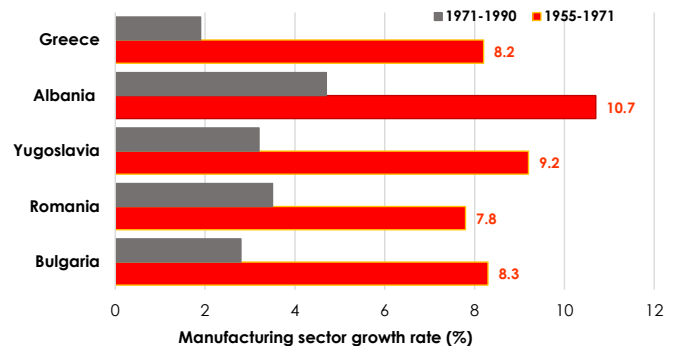


Chart 1.3. Industrial sector growth rate in the Balkan countries¹⁰²

Table 1.6 compares the annual rate of industrial production growth in the period 1951-1970 in the People's Republic of Albania, with other Balkan countries¹⁰³. The high rate of economic growth was mainly due to the basis from which industrialization began in Albania (in 1938 industry shared only 3.8-4.4% of total production, meanwhile agriculture

¹⁰⁰ Schönfeld R., "Außenwirtschaft", page 438.

¹⁰¹ FYP – Five-Year Plan

¹⁰² Figures are western estimates. Kopsidis M., Ivanov M., "Modern Industry in Southeast Europe 1945-2007. From rapid industrialization to deindustrialization" Regensburg, Germany, 2013, page 5.

¹⁰³ Kopsidis M., Ivanov M., "Modern Industry in Southeast Europe 1945-2007. From rapid industrialization to deindustrialization" Leibniz-Institut für Ost- und Südosteuropaforschung, Regensburg, Germany, 2013

shared 93.1%). In fact, in 1960 the main contributors to the output of industrial production were the light industry (21.6%) and the food industry (43.5%), while the engineering industry contributed only 2.9%¹⁰⁴. As a result of the Soviet-Albanian political conflict, the USSR and the Comecon countries cut off technical and financial assistance to the People's Republic of Albania in 1961¹⁰⁵.



Figure 1.14 "Traktori" Plant (1963)



Figure 1.15 Agricultural Machinery Plant (1963)

The period 1966-1978, however, was the period when most of the largest industrial enterprises were built¹⁰⁶ such as the metallurgical plant in Elbasan with a processing capacity of 1 million tons of iron ore and a production capacity of 250,000 tons of iron and steel products, three HPPs on the river Drin¹⁰⁷ with a production capacity of 1.8 million kWh / year, the Oil Refinery in Ballsh, with a processing capacity of 1 million tons of oil per year, as well

¹⁰⁴ Zickel R., Iwaskiw W.R. "Albania. A country study". Federal Research Division, Library of Congress USA, 1992, page 246

¹⁰⁵ The Albanian Party of Labor sided with China in the Sino-Soviet conflict. In response, the Soviet Union broke all agreements between the two countries: suspended the loans provided for the period 1961-1965, terminated all trade, technical-scientific and cultural agreements, and withdrew all Soviet specialists.

¹⁰⁶ Beritt B., "Self-reliance under socialism. The case of Albania" Journal of Peace Research, 1982 Vol 19 No. 4, page 360.

¹⁰⁷ The cascade of hydropower plants on the Drin River is a project of the early 1960s for the construction (with the financial assistance of the People's Republic of China) of 5 HPPs in Bushat, Vaun e Dejës, Fierzë, Koman, and Skavica, respectively. This cascade was proposed to be called the "Albanian-Chinese friendship cascade". To date, only 3 of the 5 HPPs envisaged in the initial project have been built.

as several enterprises in the manufacturing industry. All these investments have been made thanks to the People's Republic of China's financial support and technical assistance. China's financial support started in 1954 but intensified after 1961¹⁰⁸.

Table 1.8 Structure of Net Material Product, by sector in % 1938-1983 (using 1981 prices)

Year	Industry	Construction	Services	Agriculture
1938	3.8	0.8	2.3	93.1
1950	7.0	3.1	16.7	73.2
1960	18.6	6.5	37.3	37.6
1970	28.2	7.1	30.5	34.2
1980	43.6	6.7	17.0	32.7
1983	43.3	7.8	14.8	34.1

In terms of the mechanical industry, we can mention spare parts factories for agricultural machinery or for processing and manufacturing industry enterprises, which were built in almost every city in Albania. Albania in the 1980s had 50 mechanical plants and over 400 mechanical workshops.¹⁰⁹ In the mechanical industry, about 45,000 people were employed. The mechanical industry by the 1980s was able to produce 96% of the spare parts that Albania needed¹¹⁰.

Table 1.9 Share of engineering industry production to the total industrial production (1950-1988)¹¹¹

	1950	1960	1970	1980	1985	1988
Share of engineering industry (%)	2.8	2.7	7.3	12.5	14.6	14.5

The largest enterprises of the mechanical industry were:

“Enver” Plant (1948) in Tirana (production of spare parts, since 1978 part of the combine of tractors “Enver Hoxha”).

Mechanical Plant for Geology (1952) in Tirana (production of spare parts for exploration and drilling equipment in the mining industry).

Agricultural Machinery Plant, Durres (1946).

¹⁰⁸ In the period 1954-1975, the financial aid of the People's Republic of China to Albania was about 7.5 billion US dollars (this figure does not include military aid and military supplies, which were given free of charge).

¹⁰⁹ Dorri A., Londo A., Koca O., Alcani A., “*Studim tekniko-ekonomik për industrinë mekanike*” Tiranë 2021

¹¹⁰ Pano N., “*Communism in Eastern Europe*” chapter 8. Albania. Edited by Tereza Rakowska-Harmstone. Indiana University Press (USA) 1979. p. 230

¹¹¹ *Vjetari statistikor i R.P.S. të Shqipërisë*, 1991, page 154

Metallic Products Plant (1970), Gjirokaštër, (production of utensils and other household items).
 “Partizani” Plant (1958) Tirana (production of utensils, agricultural work tools, etc.)
 “Traktori” Plant (1960), Tirana.
 “Dinamo” Plant, Tirana (1962).

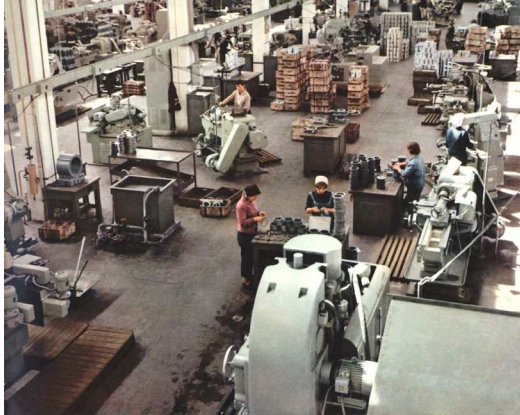


Figure 1.16. Auto-tractors Plant¹¹² “Enver Hoxha”¹¹³



Figure. 1.17 Traktori Plant (1969)¹¹⁴

Electro-mechanical Plant (Tirana 1960 and Durres 1963), (production of electric motors and electrical transformers).
 Mechanical Plant for Oil Industry (1963) City of Stalin (Kuçovë); (spare parts for Oil Industry).
 Mechanical Plant for Oil Industry (1963) Patos, (production of spare parts for Oil Industry)
 Measurements Instruments Plant “Petro Papi”, Korçë (1969) (measuring instruments and calibers).
 Electrical wires and cables Plant Shkodër (1969).
 Agricultural Machinery Plant (1962) Korçë.
 Engineering Plant “Drini” Shkodër (1971).
 Mechanical Plant of Metallurgical Combine “Party’s Steel” Elbasan (spare parts for machinery)

¹¹² Albanian: Kombinati i Autotraktorëve – literally: *Combine of Auto-tractors*. Combine – is a large industrial enterprise in former socialist countries, that combines several different enterprises that are related to each other by a technological process.

¹¹³ Enver Hoxha (1908–1985) – Albanian communist politician. From 1943–1954 Secretary General of the Albanian Communist Party (from 1948 Party of Labor of Albania), From 1954–1985 First Secretary, the leader of Albania. From 1944–1954 Prime Minister, from 1946–1953 Minister of Foreign Affairs, and Minister of War. From 1976–1985 commander in chief of the People's Army.

¹¹⁴ “*Shqipëria socialiste marshon*”, Shtëpia Botonjëse “Naim Frashëri”, Tirana, 1969. Album fotografik.

Mechanical Plant (1973) Berat (production of spare parts for textile industry machinery).
Auto-tractors Combine "Enver Hoxha" Tirana (1978), (fusion of "Traktori" and "Enver" Plants)
Mechanical Plants "Tirana" (1980) Tirana (production of bicycles).



Fig. 1.18 The Albanian Brand Tractor, type DT-54 (1978)



Fig. 1.19 "Dinamo" Plant, Tirana 1969



Fig. 1.20 Electric Wires and Cables Plant in Shkodra (1969)

The Auto-tractors Combine in the late 1970s tried to produce in series the Albanian brand tractor (Figure 1.18). Of all these enterprises, today only the Mechanical Plant for the Oil

Industry in Kuçova and the Mechanical Plant of the Elbasan Metallurgical Combine continue to be active, however with reduced capacities (about 10%).¹¹⁵

An important place in the mechanical industry of this period was played by military enterprises, which were secret. The three most important enterprises of the military industry were:

Ammunition Plant in Poliçan (1962) (production of cartridges of various calibers, grenades, detonating caps, etc.)

Explosives Plant in Mjekës, Elbasan (1962) (production of dynamite (TNT), gunpowder and ammunition).

Gramsh Mechanical Plant, [production of automatic weapons (1962) with technology and license from PR of China type SKS¹¹⁶ or "Simonov" (since 1966) and AK-47 (since 1974)]¹¹⁷.



Figure 1.21 Albanian brands of semi-automatic and automatic weapons

¹¹⁵ Dorri A., Londo A., Koca O., Alcani A., "Studim tekniko-ekonomik për industrinë mekanike" Tiranë, 2021

¹¹⁶ SKS (Russian: Самозарядный Карабин системы Симонова ККС) – semi-automatic rifle designed by S.G. Simonov. Albanian version of SKS, named Carabin "10 July", was very similar to the Chinese Carabin Model 56, anyhow it is considered a unique model. It is estimated that around 20.000 SKS was produced in the military factory of Gramsh from 1967 to 1978 (except for the period 1972-1974, in which no rifle was produced).

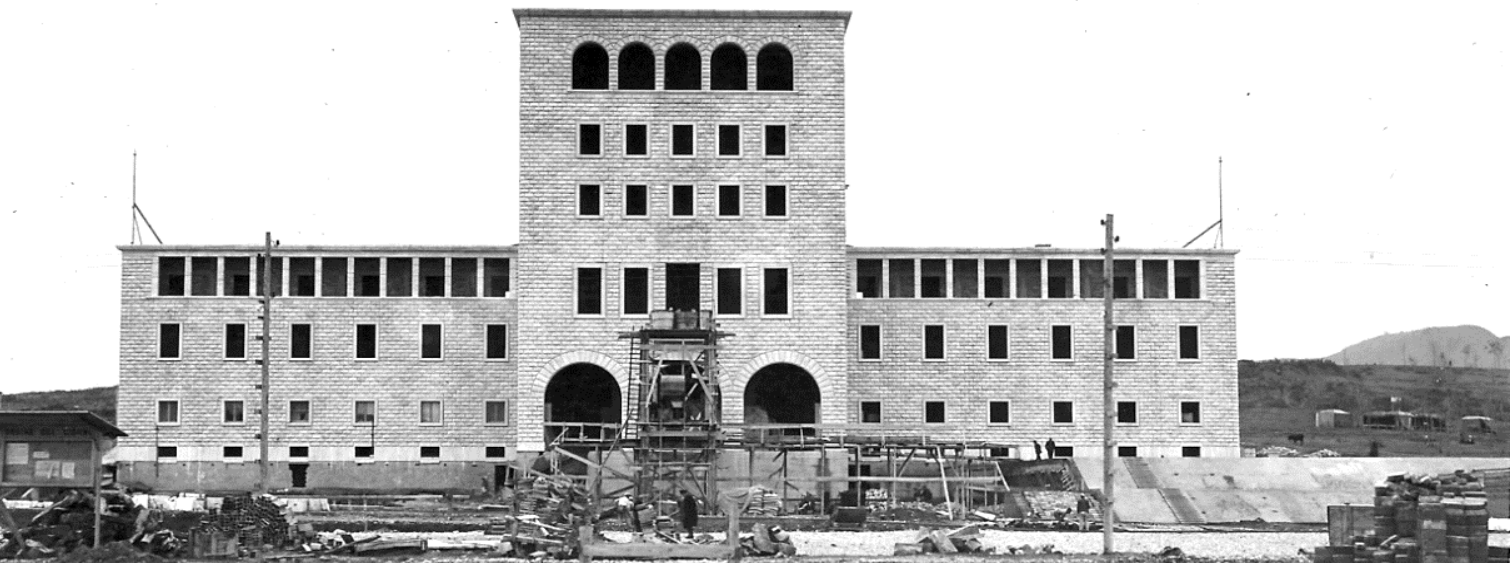
¹¹⁷ AK-47 (Russian: Автомат Калашникова) – Автомат Kalashnikov, (number 47 for the year of first manufacture, 1947) soviet machine gun developed by Russian small-arms designer Mikhail Kalashnikov. Albanian variant of AK—47 has been produced for the first time in 1978. ASH-78 Tip 1 was an identical copy of Chinese model 56 whereas ASH-82 was a copy of Russian model AK-59. The Albanian version of the AK-47 was manufactured from 1978 to 1988.

The military enterprises continue to be active. Currently in the Mechanical Plant of Poliçan 12 new production lines are installed.

The rate of industrial growth in Albania, in the period 1970-1990, fell rapidly and eventually became negative. Albania, as the most underdeveloped country in the region in the 1950s, began industrialization by developing the light industry and enterprises producing spare parts for agriculture machinery, to continue with heavy industry (in the 1980s the latter accounted for 31% of the total of the industrial production).

In the beginning of 1950s despite the foreign financial and technical assistance, the ambition of the communist regime in Albania for a rapid industrialization, **URGENTLY REQUIRED** *the training of own engineers and technicians*, so it had to be accompanied by the establishment of vocational high schools and **ENGINEERING HIGHER INSTITUTIONS**





1.3 ESTABLISHMENT OF THE HIGHER POLYTECHNIC INSTITUTE OF TIRANA

ESTABLISHMENT OF the Higher Polytechnic Institute of Tirana, together with the Higher Agricultural Institute and Higher Pedagogical Institute in 1951, marks the real beginning of higher education in Albania. All 3 Institutes were established by a Decision of the Political Bureau of the Party of Labor of Albania (PLA)¹¹⁸, on June 29, 1951, which then was formalized with a Decision of the Council of Ministers no. 548, on July 28, 1951. The objectives of the Albanian government for the establishment of 3 higher institutes were:

¹¹⁸ PLA – Party of Labor of Albania (Communist Party of Albania has changed its name in 1948).

"... [give] to science, culture, and technique in our country broader perspectives and to create conditions for their further development, according to the example of science, culture, and technique of the Soviet Union, so that they may be of service to the working masses and factors in the development of the economy of our country, and to form the intelligentsia of our land"¹¹⁹



Figure 1.22 Opening ceremony of newly established Higher Institutes (November 20, 1951)¹²⁰

The Ministry of Education and Culture preceded the establishment of higher institutes by drafting a statute, which defined the goals and tasks of the Institutes, the rights of citizens to access and benefit from the education system, the organization of teaching and scientific/research activities, as well as their governing bodies. The mandatory regulation rule required the Statute of Institutes to be approved by their Directorates and would be effective only after the approval of the Minister of Education and Culture. The Statute of the

¹¹⁹ Decision of Council of Ministers of People's Republic of Albania No. 548, dated July 28, 1951.

¹²⁰ "Gju më gju me popullin", Photo album, Tirana 1978

Higher Polytechnic Institute of Tirana was approved by Decision no. 800 of the Council of Ministers, on October 20, 1951.

In the academic year, 1955-1956 (one year before the establishment of the State University of Tirana) the Albanian higher education system included 6 higher institutes with study programs 4- and 5 years, with 22 branches ("faculties") and 1,595 students in total. The first academic year 1951-1952 for the Higher Polytechnic Institute of Tirana took place in the auditoriums where the Higher Agricultural Institute was located, and partly in the auditoriums of the former high vocational school Polytechnic "7 November"¹²¹ and of the former Pedagogical Institute. At the end of 1952, the Higher Polytechnic Institute of Tirana had its building, (where today is the "Qemal Stafa" high school in Tirana). (Figure 1.23).



Figure 1.23 HPIT main building in 1951 (today "Qemal Stafa" High School)

¹²¹ The building where today is the high school "Harry Fultz" (which from 1921-1936 was called the Vocational School of Tirana, and from 1947-1992 "7 November").

The building of the Higher Polytechnic Institute of Tirana had two floors and a basement. The building had a lecture hall (amphitheater-shaped), in which mathematics, physics, and chemistry lectures were held. In the basement of the building the mechanical workshop with metal cutting machines was located (the person in charge of the workshop was Mr. Xhevat Kapedani). There were also volleyball and basketball fields nearby of the HPIT. In a building near the Higher Polytechnic Institute was the student dormitory.

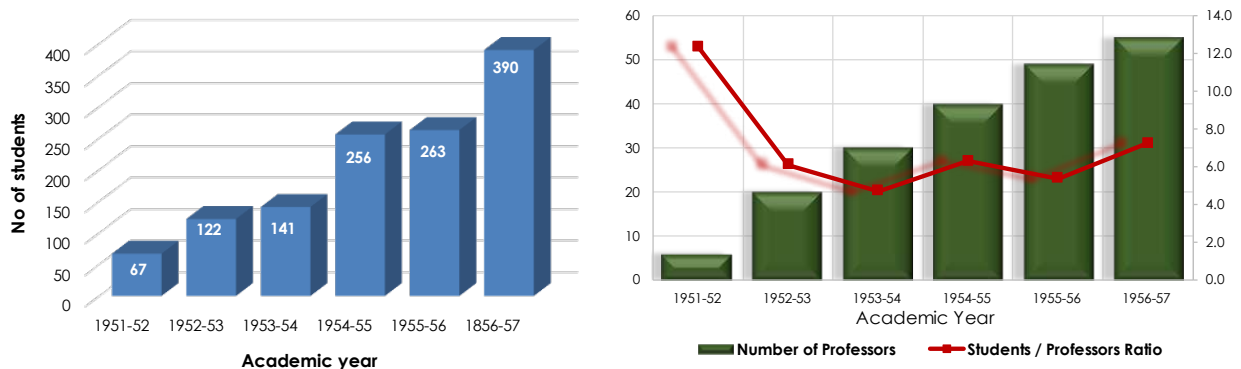


Chart. 1.4 Number of students and students/professor's ratio in each academic year (1951-1957)

The academic cycle of three newly established institutes was 4 years. A team of Soviet professors led by Prof. V. T. Makarov, of the Tomsk State University (Siberia, Russian Federation)¹²² laid the structural, curricular, and ideological foundations of new higher institutes¹²³. The Higher Polytechnic Institute of Tirana (HPIT) had three branches: Mechanical, Civil Construction, and Electrical Engineering. In the first year, HPIT would work with an integrated curriculum. Engineers *Raqi Mikeli* and *Petrit Radovicka* (hydrotechnical engineer) oversaw the drafting of the 4-year curricula, following Soviet models¹²⁴, where they have previously graduated. The first academic year of the Higher Polytechnic Institute of Tirana be-

¹²² Makarov, Vasilij Timofievic (1900-1978) – Rector of Tomsk State University 1948-1954. "In the period **1947-48** was sent to Albania, where the University of Tirana was opened under his leadership". (В 1947–1948 гг. командировался в Албанию, где под его руководством был открыт университет в Тиране) <http://wiki.tsu.ru/wiki/index.php/>. As a matter of fact, the university was established 10 years later in 1957.

¹²³ Zickel R., Iwaskiw W.R. "Albania. A country study". Federal Research Division, Library of Congress, 1992 p 92

¹²⁴ i.e., Universities of the Union of Soviet Socialist Republics (USSR).

gan on November 1, 1951¹²⁵. In the academic year, 1955-1956 the 4-year cycle of HPIT's study programs was extended to 5-years.

Excerpt from record of I.V. Stalin's Conversation with E. Hoxha (Moscow, 1951)

Comrade Stalin greets Enver Hoxha and Bekir Baluku and asks them to have a seat at the table. Then he asks them, what questions they would like to ask him

[...]

Enver Hoxha says that the Albanian government decided to open three institutes: agricultural, polytechnic, and pedagogical. Some preparatory work had been already done. In this connection, the Albanian government appeals to the Soviet government with a request to send one deputy for education, and two or three professors to each institute. Comrade Stalin notes that these professors do not know the language, how will they teach?

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According to official data until 1951, 773 students studied in Universities of the Soviet Union and other countries of the so-called "socialist camp" of Eastern Europe¹²⁷ (a great number of them for mechanical engineering) With the establishment of higher institutes in Albania, the number of students studying abroad for some specialties began to decline significantly. In 1948 there were 586 students abroad, a decade later, in 1958, 820 students were continuing their studies. Until 1958 a total of 1,240 young people had graduated from Soviet and Eastern

Bloc universities, excluding military students and short-term trainees.

Regarding the distribution of Albanian students by countries where they studied, for instance, in 1955 the government decided to send 170 students abroad, of which 59 to the Soviet Union, 27 to Czechoslovakia, and smaller contingents to Bulgaria, Romania, Poland, Hungary, and East Germany¹²⁸.

By the academic year 1955-1956, 1,623 students had studied or were studying in the universities of the USSR and other socialist countries of Eastern Europe, and 911 students had graduated¹²⁹. As a result, after 1955 the number of scholarships abroad awarded by the

¹²⁵ Çlirim Duro "Arsimi i Lartë në Shqipëri 1946-1968" (PhD thesis)" UT, 2012

¹²⁶ In fact, in the original of the transcript, is: "E Hoxha: ... the Albanian government decided to open three institutes: agricultural, political, and pedagogical", and the note at the end of the transcript clarified: "[5] As in the original. It should be Polytechnic"). Record of I.V. Stalin's Conversation with E. Hoxha "About Certain Foreign and Domestic Problems of Albania", Moscow April 2, 1951, 22 hours, 00 minutes. Top Secret. Present: I. V. Stalin E. Hoxha, V. M. Molotov, G. M. Malenkov, L. P. Beria, N. A. Bulganin, and Chief of Staff of the Albanian Army Beqir Baluku.

¹²⁷ AQSH, F.1011, V. 1951, dos.15, "Raport mbi hapjen e instituteve të larta" pp. 3-14.

¹²⁸ AQSH, f. 495, v. 1955, dos. 85, pp. 4-6

¹²⁹ AQSH, F.1011, V. 1955, dos. 26 p. 1

Albanian government per year was only a quarter of total applications. Albanian government was focused on the most important areas (the Albanian government considered Engineering and studies of the Marxist theory of great importance). In its first academic year 1951-52, the Higher Polytechnic Institute of Tirana (HPIT) had only two full-time professors, Zija Këlliçi (engineer), and Petraq Fundo¹³⁰ (mathematician). Other lecturers at Higher Polytechnic Institute of Tirana were Besim Daja (architectural engineer, and staff of the Ministry of Construction) teaching engineering drawing, Anastasi Papa (staff of Higher Agricultural Institute) for teaching theory of Marxism-Leninism, Kole Popa (staff of Institute of Natural Sciences) teaching chemistry.



Figure 1.24 Laboratory class at Higher Polytechnic Institute (1952)

According to the Statute, the Council of Ministers appointed the Director and Deputy Directors of Higher Institutes. The Director of the Higher Polytechnic Institute from 1952 to

¹³⁰ Petraq Fundo (1908–1989) – mathematician. Graduated from *Université de Toulouse* (France) simultaneously in mathematics and engineering. He was expelled from the academic staff of HPIT for ideological reasons.

1957 was Prof. Zija Këlliçi¹³¹. The Deputy Director of curricula and research was Prof. A.N. Kononov¹³². The common practice was that the first deputy director of newly established higher institutes in Albania was from the USSR, serving also as an advisor attached to the institute. The second deputy director oversaw administrative aspects.

[.... in August 1952.] I was informed that I was being awarded a scholarship to study at the Polytechnic Institute of Tirana, in the field of Civil Engineering. [...] With some Russian professors and Albanian engineers, who had finished their studies three or four years ago, mainly in the Soviet Union, we developed a variety of technical subjects, where architecture took the place beyond the end. Mr. Besim Daja, more out of his good will to give us some knowledge, than to complete the course syllabus, taught us four or five hours on the history of architecture where, after passing a quick panorama of tens of centuries in architecture, [...] an entire hour was devoted to the critique of the architecture of the capitalist era and especially the American one, which was stigmatized as the worst.

Petra Kolevica

Architecture and dictatorship, 1997

TEACHING

The curriculum of each branch was approved by the Ministry of Education and Culture. According to the Statute of the Polytechnic Institute, students were obliged to pass the exams of specific full-course subjects, at the end of each academic year. For other subjects, where the lecture was of practical nature (foreign language, engineering drawing, internship, etc.) the level of knowledge was assessed with a *colloquium*¹³³. The evaluation was done with a system of five grades: from 1 - 5 (5 - "excellent", 4 - "good", "3 - sufficient", and grades 2 and 1 "failure to pass").

In the final year, the students should prepare, present, and stand for a thesis, or a diploma project, in front of a state commission, which then would award the relevant diploma, signed by the Director of the Institute, the chairman of the state commission and the teach-

¹³¹ Academician Zija Këlliçi (1919-1982), Vice Minister of Civil Construction (1949-1951), Deputy of Parliament of People's Republic of Albania (1950-1970), Director of the Higher Polytechnic Institute (1952-1957), First Rector of the State University of Tirana (1957-1961), civil engineer and lecturer of the course "Resistance of Materials", member of the Academy of Sciences of Albania. He studied from 1939 to 1942 at the Politecnico di Torino, Italy, and completed his studies in Moscow after the Second World War (1945-1949).

¹³² "Fakulteti i Inxhinierisë Mekanike në 50 vjetorin e tij", Monografi, Londo A., Shtëpia Botuese "Pegi", Tiranë 2001, page 15

¹³³ *Colloquium* (lat., conversation), one of the meanings is the mini exam, which was commonly used in Soviet universities and colleges, for the partial assessment of a student in a certain subject, or for the final assessment in subjects that had only seminars and laboratories or for internship.

ing secretary of HPIT. At the end of 1952, full-time professors were appointed: Kristaq Fundo¹³⁴, Fatmir Sinojmeri, Parashqevi Ylli, Besim Daja, Kiço Negovani (head of the civil engineering), Reiz Çani (head of electrical engineering) and Tahir Haxhiymeri. Responsible for mechanical engineering was Prof. Tahir Haxhiymeri. In 1953, the fourth branch of HPIT was established, geology and mining, headed by Prof. Eshref Pumo.

Engagement in short and/or long-term training by professors from Soviet universities during the 1952-53 academic year fulfilled the HPIT's needs for academic staff. Some of Soviet professors were: Shvidenko, Shkarbanov, Panormova, Sokolov, Vargazin, Popov, Arshinov, Solodov, Zaharov, Kramarenko, Vjeslov, etc.

Table 1.9 Number of students and professors at HPIT (1951-1957)

Academic year	Total students	Number of Professors
1951-52	74	6
1952-53	122	20
1953-54	141	30
1954-55	252	40
1955-56	263	49
1956-57	398	55

According to the decision of the Council of Ministers no. 815 dated December 20, 1952 “On the possibility of opening “part-time”¹³⁵ higher institutes” the latter began to organize the evening/after-work, education model. The Deputy/Director for the part-time system of study was appointed Prof. Kiço Negovani¹³⁶.

During the academic year, 1952-1953 the first textbooks of the following subjects were translated: Chemistry, Mathematics, Geodesy, Theory of Mechanisms and Machinery, Physics, Resistance of Materials, and Hydraulics (usually from Soviet textbooks). In 1955, the first 57 engineers of HPIT graduated.

¹³⁴ Kristaq Fundo (1906-1984) – mathematician, professor. Graduated from *Université de Montpellier* (France) simultaneously in mathematics and engineering. Founder of the tradition of mathematical formation of engineering students in Albania.

¹³⁵ System of study offered for the students from enterprises or state institutions

¹³⁶ Kiço Negovani (1925-2018) - engineer, professor in the field of construction. Graduated from the Novocherkarsk Polytechnic Institute (USSR) in 1953, Assistant Professor at SUT, Head of the Department of Civil Engineering at the ILP in Tirana and Dean of the Faculty of Engineering at SUT (1957-1967).

Chairman of the State Jury (Commission) in the defense of diploma theses for the branch of mechanical engineering was the Chairman of the State Planning Commission¹³⁷ Mr. Koço Theodhosi¹³⁸.

SCIENTIFIC RESEARCH

The first conference presenting scientific papers of researchers was organized in 1952 by the newly established technical-scientific students association. In May 1953 a second session was organized by the students 'association. Authors of papers in these scientific sessions were students: Bardhyl Golemi, Bestar Dokja, and Selam Taka, and from academic staff: Deputy Director of Higher Polytechnic Institute of Tirana, soviet professor Konov.

Decisions of the Council of Ministers of the People's Republic of Albania, no. 153, on May 2, 1955 *"On degrees and scientific titles and postgraduate studies in higher institutes and research institutions"* and Nr. 293 of 1956 *"On the preparation of the first post-graduate students within the country without dismissal from work"*, defined the first legal regulations of postgraduate studies according to the Soviet model in the Higher Institutes in Albania. After these studies, the dissertation theses to fulfill the requirements for scientific degrees "candidate of sciences" and "doctor of sciences"¹³⁹ could be defended. In 1952, the Scientific Council of Higher Polytechnic Institute of Tirana was established (by decision of the Ministry of Education No. 78/204, on November 01, 1952). The Scientific Council had 23 members, of which 7 were correspondent members (mainly from the government).

According to the above-mentioned regulation, the High Attestation Commission was set up at the Council of Ministers. The commission consisted of the chairman who was the Minister of Education and Culture, 2 vice-chairmen, 1 scientific secretary, and other members

¹³⁷ State Plan Commission in Communist countries of Eastern Europe is "analog" to the Ministry of Economy and was the responsible agency for central economic planning in the People's Republic of Albania.

¹³⁸ Koço Theodhosi (1913-1977) – Albanian politician high ranking member of the Communist Party. He studied chemistry at the University of Lyon (France) and the University of Liege (Belgium). From 1945 to 1974 he was part of the communist government. From 1962 to 1966 he was Vice Premier of the Council of Ministers. In 1977 Koço Theodhosi was sentenced to death and executed as part of a conspiracy group against the communist regime.

¹³⁹ Tadeusz Czekalski *"The shining beacon of socialism in Europe. The Albanian State and Society in the Period of Communist Dictatorship 1944-1992"* ISBN 978-83-233-3515-3. Poland, 2013

approved by the Council of Ministers.¹⁴⁰ This commission was the highest decision-making body for the award of degrees and scientific titles. The decision of Council of Ministers no. 153, on May 2, 1955, provided for exceptional cases in the decision-making of the High Attestation Commission such as:

Table 1.10 HPIT's Scientific Council (1952)

Zija Këlliçi (chairman)	
A.N. Konov	Ilo Kuneshka
A.P. Sokolov	Kiço Negovani
Vergazin	Xhafer Spahiu ¹
Shkarbanov	Ilo Kerenxhi
Panormova	Shinasi Dragoti ²
Koli Xoxe	Tahir Haxhiymeri
Besim Daja	Eshref Pumo
Zihni Sinoimeri	Mensur Kodra
Nuri Bajraktari	Eqrem Dobi
Luan Voshtina	Reis Çani
Fatmir Sinoimeri	Akile Papadhimetri

¹ Deputy Minister of Industry

² Deputy Minister of Construction

1. postgraduate conversion by passing exams.
2. exceptional cases when the procedure could not be followed:
 - a. "... when the person seeking to enter postgraduate studies has a long experience in scientific work and has scientific works published at a high scientific and ideological level" In this case, the High Attestation Commission in the Ministry of Education gave him the degree of "*Candidate of Sciences*".
 - b. for the scientific degree "Doctor of Science" the status of exclusion from the preparation of the dissertation was gained by those researchers who had published "... outstanding scientific works, who have made important inventions and discoveries".

The title "*Assistant*" was given to the lecturer by the Scientific Council of the Higher Institute. The title "*Docent*" was given to the professors who had not less than 3 years of work when they were able to develop full and independent lecture courses. The title "*Professor*" was given to lecturers who had not less than 3 years in work since receiving the title "*Docent*".

¹⁴⁰ Rregullorja "Mbi Komisionin e Lartë të Atestimit", dt. 7.06.1955.

In the last two cases, the approval passed first to the Scientific Council of the Higher Institute and then to the High Attestation Commission at the Council of Ministers. The activity of the candidates for scientific titles was publicly evaluated, after the reviews and discussions in the respective chairs and then in the Scientific Council of the Higher Institutes.

Table 1.11 Staff of HPIT (1957)

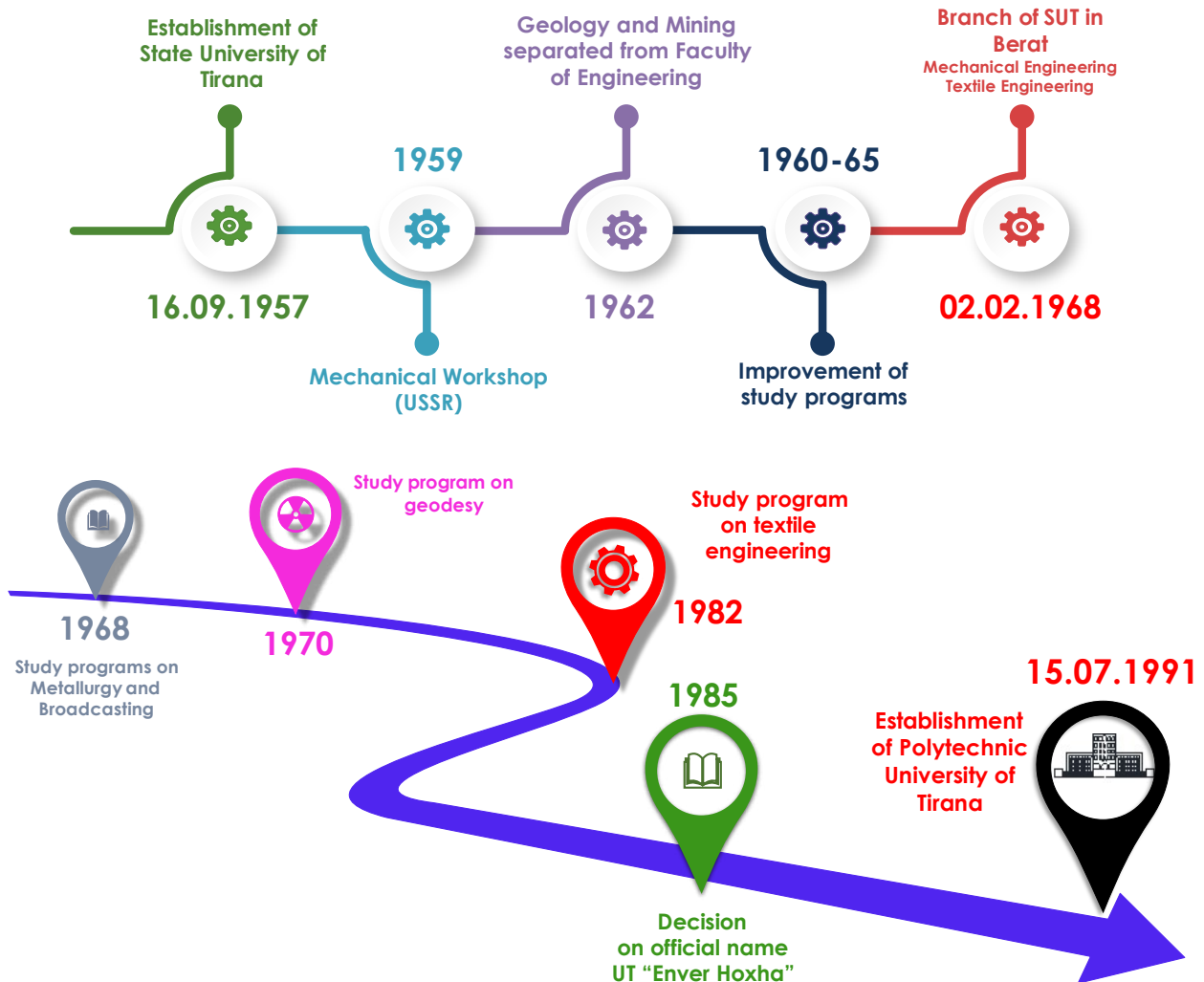
1	Zija Këlliçi	11	Reis Çani	21	Pandi Stratobërdha	31	Myhyrdar Hasantari
2	Bajram Dume	12	Nuri Bajraktari	22	Akile Papadhimitri	32	Besnik Zeraliu
3	Katerina Stefi	13	Xhevat Kapedani	23	Thanas Gaçe	33	Bardhyl Golemi
4	Besim Daja	14	Themo Mandili	24	Gjovarf Banci	34	Petraq Dushniku
5	Fatmir Sinoimeri	15	Luan Voshtina	25	Xhemal Gjata	35	Sotir Andrea
6	Parashqevi Ylli	16	Vangjel Moisiu	26	Efigjeni Floqi	36	Andon Prifti
7	Ferik Shtino	17	Fehmi Shehu	27	M. Dragovoja	37	Eshref Pumo
8	Kristo Fundo	18	Kiço Rambi	28	Luan Peza	38	Telat Mehmeti
9	Tahir Haxhiymeri	19	Ali Dedei	29	Dhimiter Luka	39	Dhurata Kalaja
10	Kiço Negovani	20	Dhimosten Verli	30	Jorgji Ziko		



2ND PERIOD

1957 - 1991

TIMELINE





2.1 ESTABLISHMENT OF THE STATE UNIVERSITY OF TIRANA

THE ESTABLISHMENT of the State University of Tirana (SUT) was officially done with Decree no. 2476, dated June 3rd, 1957 *"On the establishment of the State University of Tirana"* of the Presidium of the People's Assembly (Parliament) of the People's Republic of Albania (PRA). Decree no. 2476, dated June 3rd, 1957, states:

"... under the support of the article 58, point 6 of the Constitution of People's Republic of Albania, People's Assembly decides establishment of State University of Tirana"

This decree is following the decision of the Political Bureau of the Central Committee of the Party of Labour of Albania (PLA) no. 162 dated May 15th, 1957¹. Decision no. 207 dated June 3rd, 1957, of the Council of Ministers of the People's Republic of Albania "*On the organization of the State University of Tirana*", defined the details of the organization of the university.

OFFICIAL NAME

Article 2 of decree 2476, dated June 3rd, 1957, of the Presidium of the People's Assembly (parliament), provided:

The University is a state institution named "The State University of Tirana"² under the jurisdiction of the Ministry of Education and Culture.

STRUCTURE

In 1957, the State University of Tirana had six Faculties³, as defined in Decision of the Council of Ministers no. 207 dated June 3rd, 1957:

"Article 1"⁴

Tirana State University has six faculties:

- a) *Faculty of History-Philology with the two branches of history and linguistics.*
- b) *Faculty of Law.*
- c) *Faculty of Economics, with the two branches of economics and finance/accounting.*
- d) *Faculty of Engineering with four branches mechanical, electrical, civil construction engineering, and geology.*
- e) *Faculty of Natural Sciences with the two branches mathematics-physics and biology-chemistry.*
- f) *Faculty of Medicine.*

¹ "Decision of the Political Bureau of the Central Committee of the APL no. 162 dated 15.05.1957 defines in detail the faculties that would be created, the curricula, the higher institutes that would be included, the conditions that would guarantee the qualification of the academic staff, etc." Kambo E., "*Arsimi në Shqipëri (1946-1960)*", Edition of Institute of History in Albanian Academy of Sciences, Tirana 2005, page 163.

² The official name of the university was changed in 1976 to the University of Tirana, and in 1985 its name was changed again to the University of Tirana "Enver Hoxha".

³ The branch of geology and mining temporarily returned to the Faculty of Engineering, until it again separated from this faculty in 1962.

⁴ Omari L., Pollo S., Golemi B. "*Universiteti Shtetëror i Tiranës 1957 – 1967*"; page 9.

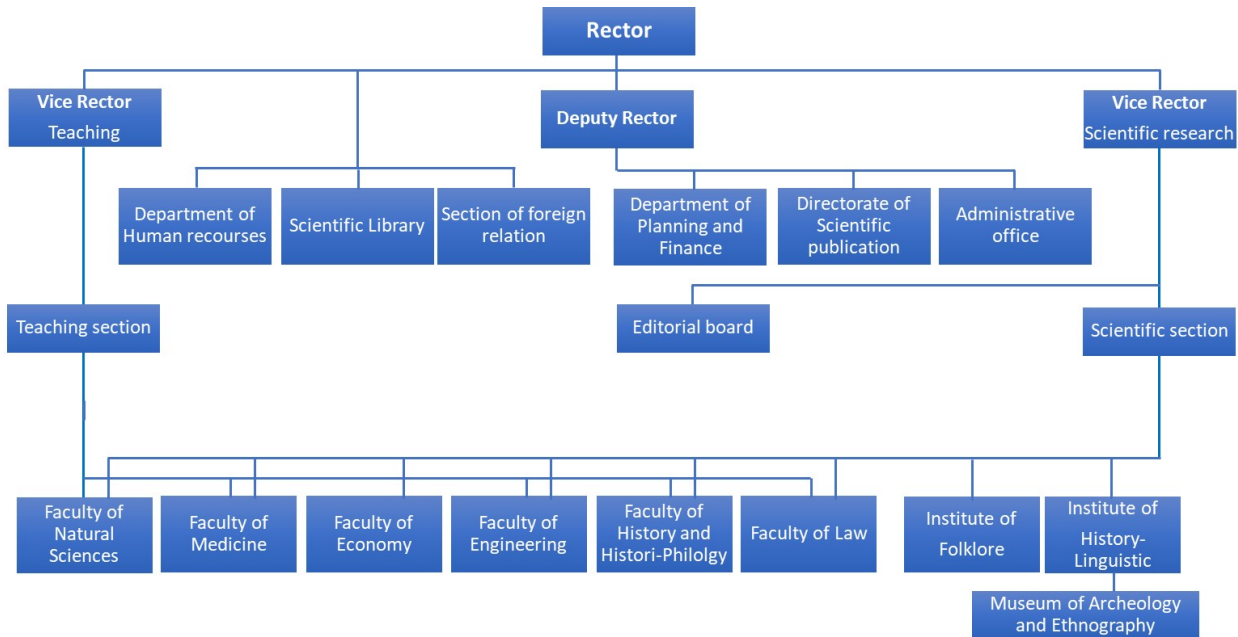


Figure 2.1 Organizational scheme of SUT (1957)⁵

The State University of Tirana (SUT) was established by joining 5 from 6 higher institutes established in 1951-1957 i.e., Polytechnic, Pedagogic, Law, Medicine, and Economy⁶. The Scientific Institute partially joined the SUT, whereas Higher Agriculture Institute (established in 1951) was not included in SUT. The Higher Polytechnic Institute of Tirana established in 1951, was fully absorbed by the State University of Tirana under the name the Faculty of Engineering. In 1962 the branch of geology was separated from the Faculty of Engineering, and the Faculty of Geology-Mining was established. The first rector of SUT was Prof. Zija Këlliçi, while the Vice-Rector for the teaching activity was Prof. Hasan Duma⁷ and

⁵ Ibid. page 21

⁶ By the Decision of the Council of Ministers in 1952 Higher Institutes of Economics and Medicine were established, and then in 1954 the Higher Institute of Law (Jurisprudence) was established.

⁷ Hasan Duma (1925 – 1990) professor, Vice-rector of SUT (1957-1965), Vice Minister of Education and Culture during the communist regime (1965-1975), and victim of purges in the Albanian Communist Party during the 1970s.

for the scientific activity Prof. Kol Paparisto⁸. (In addition, as in the case of Higher Institutes, another deputy-rector at the same time as a university adviser was a Soviet professor).

A rally on the occasion of the approval of the establishment act of the first Albanian University was organized in the square in front of the University's Main Building, on June 10, 1957 (see fig. 2.2 and 2.3). The rally was greeted by prof. Zija Këlliçi, Prof. Aleksandër Xhuvani⁹ Prof. Fejzi Hoxha¹⁰, and students: Virgjini Llambro and Agim Mero (the latest at the same time, head of the Communist Youth Organization at SUT and in the early 1970s Rector of SUT). The ceremony was attended by the Minister of Education and Culture, Mr. Ramiz Alia.¹¹



Figure 2.2 Rally on the occasion of SUT establishment on June 10th. 1957, Rector Prof. Z. Këlliçi¹²



Figure 2.3 Rally on the occasion of SUT establishment on June 10th. 1957, Mr. Agim Mero student¹³

⁸ Kolë Paparisto (1914–1980) – academician, professor, biologist, botanist. *Alma mater* University of Sorbonne (France), 1941. Head of Institute of Sciences (1951-1957), Vice-Rector of SUT (1957-1967).

⁹ Aleksander Xhuvani (1880 – 1961) – academician, professor, linguist, and writer, has worked for the standardization of the Albanian language.

¹⁰ Fejzi Hoxha (1909-1992) – academician, physician, and founder of internal medicine in Albania.

¹¹ Ramiz Alia (1925-2010) – Albanian communist politician. From 1949–1955 the leader of the Albanian Association of the Working Youth, and from 1955–1958 Minister of Education and Culture. After 1958 chair of the committee on foreign Affairs of the parliament. From 1982 speaker of the parliament, from 1985–1992 head of state, and between 1991 and 1992 President of democratic Albania. From 1948 member of the Central Committee of the Albanian Party of Labor, and from 1961 member of the Politburo and secretary responsible for ideology, in 1985 he became the First Secretary of the Party of Labor of Albania.

¹² Source: Central State Film Archive

¹³ Ibid.

Approval of the Statute of the University, by decision of the Council of Ministers no. 256, dated July 3rd, 1957 "On the approval of the statute of SUT"¹⁴ (drafted by the Ministry of Education and Culture), was an important act to determine the organizational structure of the State University of Tirana.



Figure 2.4 SUT Inauguration Ceremony, September 16th, 1957¹⁵

Although the People's Assembly (parliament), officially the highest decision-making body in the People's Republic, had set **September 1st, 1957**, as the starting date of the first academic year of the State University of Tirana "its doors were opened [only] on **September**

¹⁴ Gazeta Zyrtare (Official Gazette), 1957, no. 9, August 10, 1957, pages 314-330. Decision of Council of Ministers, No. 256, dt. 3 July 1957 "Mbi aprovimin e statutit të USHT".

¹⁵ Source: PUT archive.

16, 1957¹⁶ by the Party leadership (and *de facto* the real power in Albania), as you may see in Figure 2.4¹⁷. The establishment of the University also was greeted by Rectors and vice-rectors of universities of socialist countries of Eastern Europe who were present at the ceremony. In his greeting, the Vice-Rector of the Charles University in Prague (Czechoslovakia)¹⁸ emphasized among others:

*"Charles University in Prague, the oldest university in Central Europe, greets its younger brother, State University of Tirana ..."*¹⁹.



Figure 2.5 University Main Building (1957)

¹⁶ Omari L., Pollo S., Golemi B.; *"Universiteti Shtetëror i Tiranës 1957 – 1967"*, page 12.

¹⁷ At the inauguration of the State University of Tirana, the "ribbon cutting" was done by the First Secretary of the Party of Labour of Albania (PLA), Mr. Enver Hoxha, accompanied by the Organizational Secretary of the Party Mr. H. Kapo, Prime Minister Mr. M. Shehu, Secretary of Communist Youth of SUT Mr. A. Mero and the Rector of SUT Prof. Zija Këlliçi. The President of the People's Republic, Mr. Haxhi Lleshi stands in this ceremony (see Figure 2.4) in the fourth row, while the Minister of Education is not at all.

¹⁸ *Univerzita Karlova v Praze* – established in 1347 by Holy Roman Empire Charles IV, Charles University in Prague is the most known Czech university in the world.

¹⁹ *Gazeta "Zëri i Popullit"* (Newspaper *"People's Voice"*) September 17, 1957, page 2.

Vice-rector (and former rector) of Moscow State University²⁰ (USSR) Prof. Dr. Ilia Savich Gallkin, after reading the greeting of the rector, academician Ivan Georgevich Petrovski, said:

"I came here from the oldest university of my homeland and I am happy to be able to personally give to the Rector of the University of Tirana "The history of Moscow State University" in two volumes and the medal that came out in honor of the 200th anniversary of our university".²¹

The State University of Tirana had as its main building (where the Faculty of Engineering was located), what is still today the main building of the Polytechnic University of Tirana. The SUT in 1957 had 3,613 students, about 300 lecturers, 100 invited lecturers (23 of them from the USSR with high pedagogical and scientific qualifications, professors or associated professors), and 125 people managing and administrative staff. Eight of the Soviet professors were attached to the Faculty of Engineering. Soviet professors were expected to stay for periods of 6 months (1 semester) to 2 years. SUT had 6 faculties with 15 separate branches and 45 chairs (see Figure 2.1).

The Faculty of Engineering in 1957 had 4 branches (construction engineering, electrical engineering, mechanical engineering, and geology-mines), 11 chairs, 45 effective lecturers, 19 invited lecturers, and 485 students.

²⁰ Московский государственный университет им. М. В. Ломоносова (MGU) – established in 1755 on the initiative of Mikhail Lomonosov, an outstanding Russian scientist of the Enlightenment.

²¹ Gazeta "Zëri i Popullit" (Newspaper "People's Voice"), 17.9.1957, page 2.



2.2 FACULTY OF ENGINEERING AT SUT

TEACHING

ACCORDING TO article 8 of the Statute of SUT of 1957, the basic unit of the faculty was the chair (or so-called “cathedra”²²):

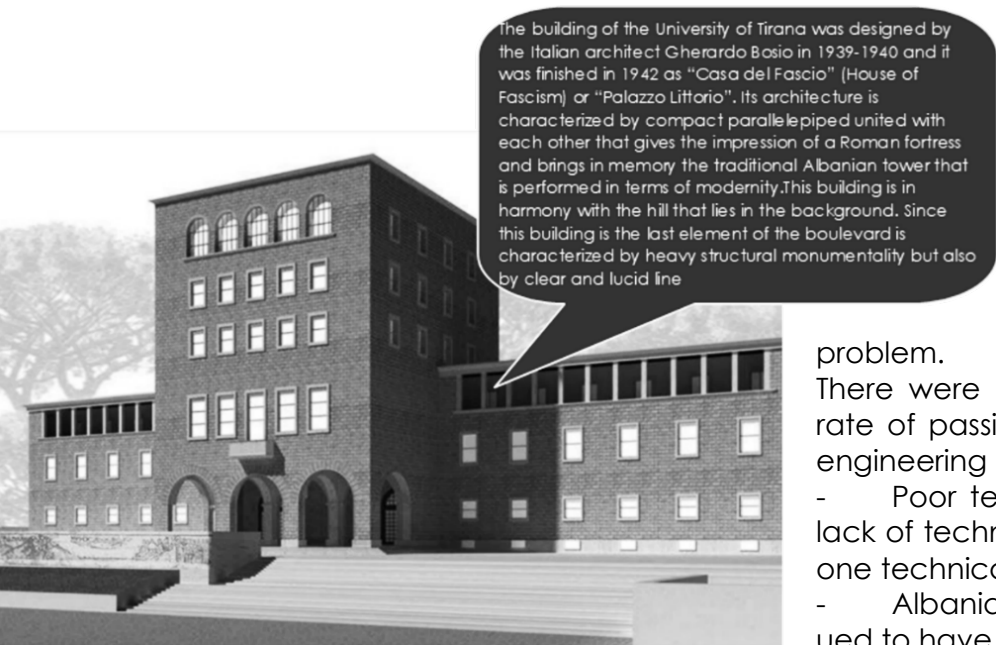
“Cathedra is the fundamental educational and scientific research unit of a faculty or a branch of higher institutes, that deals directly with the teaching, methodological and educational aspects, as well as scientific research in one or several similar subjects.”²³

In 1957, the Faculty of Engineering had 12 chairs: materials resistance, geodesy, technical drawing and architecture, hydraulics, civil constructions, thermo-technics, technology of

²² Chair (Latin: *Cathedrae*) was an equivalent of an academic department in most of the socialist countries in Eastern Europe. (still exist in Poland, Russia, and the Czech Republic). A chair is a division of a university or school faculty devoted to a particular academic discipline

²³ Omari L., Pollo S., Golemi B.; “Universiteti Shtetëror i Tiranës 1957 – 1967”; p. 23

metals, mechanical constructions, machines, electrotechnics, power plants, weak electric currents (telecommunication).



In all branches of the Faculty of Engineering, there was an ever-increasing number of students, but their ability to pass the exams and graduate remained a

problem.
There were several reasons for the low rate of passing exams, especially in the engineering branches:

- Poor teaching in high schools and lack of technical schools (there was only one technical school in Tirana)
- Albania in the early 1950s continued to have a high illiteracy rate (51%)

Figure 2.6 Main Building of State University of Tirana is part of the historic ensemble of Tirana

Table 2.1 Graduates and enrolled students at the Faculty of Engineering (1958-1964)

Academic year	Total students	Number of graduates
1957-58	485	41
1958-59	463	65
1959-60	670	100
1960-61	784	81
1961-62	1400	153
1962-63	986	90
1963-64	866	148

- Class distinction or political affiliation criteria were applied in the admission of students.²⁴

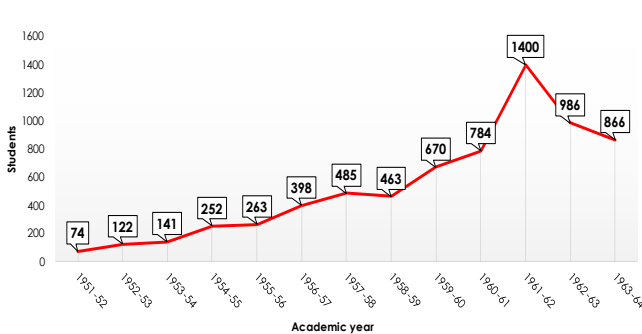


Chart 2.1 Total number of students in engineering from 1951 to 1964 (at HPIT and FE at SUT)

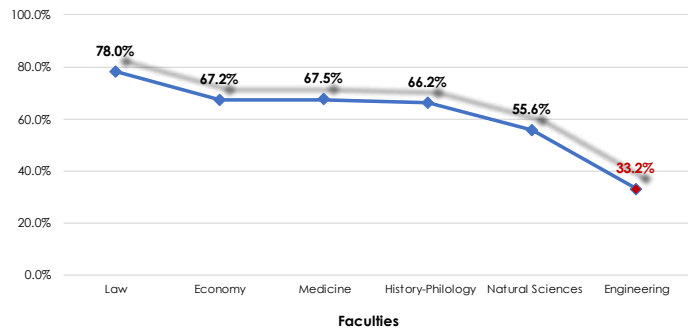


Chart 2.2 Passing the exams rate in % to the total (the summer season 1958-1959)

The passing rate of exams is similar today at the Faculty of Mechanical Engineering (at the Polytechnic University of Tirana), but for different reasons.

Table 2.2. The pass rate of exams in % of the total number (Spring semester, 1958-1959)

The faculty	Total students	Passing (%)
Law	84	78.04
Economy	155	67.16
History and Philology	222	67.15
Medicine	434	66.26
Natural Sciences	155	55.63
Engineering	463	33.2

It can be seen in Tables 2.3 and 2.4 that in the period 1951-1957 the curricula were revised and improved, especially by increasing the weight of specialty subjects and practical lecturing. Table 2.4 presents the ratio between different categories of courses in the curriculum of the mechanical branch: general courses, general technical courses, and specialty courses, as per the improved study plans of 1959-1966.

²⁴ "For example, in the 1951-1952 academic year at the Higher Polytechnic Institute, 50% of the enrolled students were members of the ruling Communist Party" Kambo E., "Arsimi në Shqipëri 1946-1960", Tiranë 2006

Table 2.3 Structure of curricula in the academic year 1959-1960

Faculty	Courses	General subjects	General special sub- jects	Specialty subjects
Engineering		18%	37%	45%
Economy		19%	18%	63%
Natural Sciences		17%	23%	60%
History Philology		20%	17%	63%
Law		18%	14%	68%
Medicine		11%	35%	54%

Table 2.4 Ratio between different categories of disciplines in curricula 1957-66 (Mechanical Branch)

Academic year	Courses	Percentage of subjects groups		
		General	General technical	Specialty
1957-58		27.28%	38%	34.72%
1959-60		18%	36.6%	40.8%
1965-66		12.2%	63%	24.8%

Table 2.5 Academic staff at the State University of Tirana

The faculty	1960			1967		
	Nr. of stu- dents	No. of lec- turers	Lecturer / student ratio	Nr. of stu- dents	No. of ped- agogues	Lecturer / student ratio
Engineering	785	51	1/15	1090	59	1/18
Geology-Mining ^{*)}	-	-	-	255	24	1/10
Economic	170	20	1/8	435	25	1/17
Natural Sciences	370	43	1/8	1245	81	1/15
Medicine	635	53	1/12	1030	77	1/13
History Linguistics	260	40	1/6	945	68	1/14
Law	75	4	1/19	155	9	1/17

^{*)} Data for the Faculty of Geology and Mining is available only for the academic year 1967-1968 because this faculty was established only in 1962.

Despite the continuous increase in the number of lecturers, the Faculty of Engineering continued to have a low ratio of lecturers vs. the number of students and furthermore, lacked the appropriate teaching infrastructure. The increase in the number of students in the branches of engineering was not in the same ratio as the recruitment of academic staff.

In 1965, based on the proposal of the SUT Rector, the Council of Ministers approved the new curriculum in the mechanical engineering branch at the Faculty of Engineering with 2 orientations (profiles):

- General mechanical engineering
- Agricultural machinery²⁵

(the first 3 years would be joint and the last 2 years profiled)

SCIENTIFIC RESEARCH

From the first academic year, 1957-58 SUT developed its scientific work, based on a broad thematic plan approved by the Ministry of Education and Culture and the Council of Ministers. A great help in organizing scientific research was given by the Soviet professors attached to SUT.

At the Faculty of Engineering at SUT, in support of scientific research, scientific sections were set up in the fields: of hydro-energy (4 people), geology (3 people), and construction and architecture (3 people). The research work in the chairs of the Faculty of Engineering was oriented toward practical projects in the service of the national economy. In the academic year 1957-1958, several projects were realized, such as project idea of the hydro-technical node in Hydropower Plant (HPP) of Bistrica; projects of several hydropower plants in northern Albania; project on chromium reserves in Bulqiza basin; hydraulic turbines for the villages; etc.

Also, in the 1950s, several other scientific projects were realized such as the participation of the professors of the Power Plant Chair in the design of the Shkopet Hydro Power Plant

²⁵ AQSH, F.14/APov, V. 1965, dos.8 page 282

(HPP)²⁶ and Bistrica 2 HPP; the design of irrigation systems in the Kukes area; study of auto-synchronization of the power supply system in the People's Republic of Albania; several local power supply projects; studies on heating and ventilation in some industrial and recreational/cultural facilities; design of the Transport Hub of Elbasan; topographic surveys in some areas of Albania; design of the "Dinamo"²⁷ Plant in Tirana; study on installations and equipment for the Opera House in the Palace of Culture in Tirana.

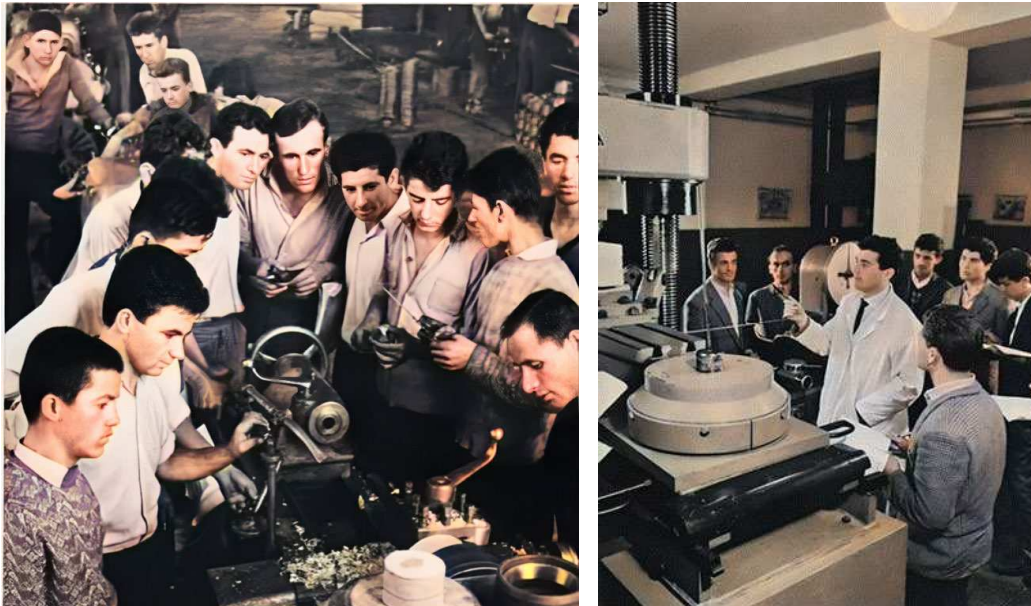


Figure 2.7. Laboratory classes in the mechanical engineering branch (1957)

In 1958 The Ministry of Education and Culture approved the establishment of the first Scientific Council of the Faculty of Engineering, with official endorsement no. 372, dated September 20, 1958. With the assistance of the USSR and other countries of the Eastern communist bloc, in 1960 were equipped first laboratories of the Faculty of Engineering. Only for

²⁶ The HPP of Shkopet was called "Friedrich Engels", and it was the 2nd HPP on the river Mat. The HPP of Shkopet started to be built construction began in 1959 and was put into operation in 1963 with a power of 24 thousand kW.

²⁷ Dinamo Plant was one of the mechanical plants of the city of Tirana (the others were the plants: "Enver", "Partizani", "Traktori" and "Tirana") specialized mainly in equipment and spare parts for mining machinery.

the year 1959, the Albanian government approved an amount of 450,000 rubbles²⁸ for SUT's laboratory equipment (worth about US\$ 1 million today) and 51,000 rubbles (worth US\$ 115,000 today) for chemicals for laboratories.

All of this came to an end, with the severance of diplomatic relations between the People's Republic of Albania and the USSR²⁹. This was followed by an increase in the number of students due to the return of students studying in the USSR putting in difficulty the normal activity of SUT (see Chart 2.1 number of students in the academic year 1961-1962). The severance of diplomatic relations with the USSR was reflected in the field of higher education and science cooperation with several Eastern European countries which in turn made it impossible. The Eastern European countries followed the USSR, although they did not sever diplomatic relations. In the field of education and science, Albania's secession from the bloc of Eastern European countries brought the impossibility of continuing the qualification and training of the academic staff in SUT.



Figure 2.8. HPP "Friedrich Engels" (Shkopet) 1963



Figure 2.9. HPP Bistrica 2 (1966)

²⁸ Rubble was the currency of the USSR and now is the currency of the Russian Federation. Eastern bloc countries used ruble as convertible currency until 1963 when introduced the transferable ruble as a collective currency, for members of the Council for Mutual Economic Assistance (CMEA or Comecon).

²⁹ The cessation of USSR financial, military, and technical assistance to Albania (in April 1961), and finally the severance of the diplomatic relations (November 1961), occurred because of the involvement of the Albanian Communist Party in the Sino-Soviet conflict, on the side of the People's Republic of China.

Table 2.6. The First Scientific Council of the State University of Tirana (1957-1963)

1 Zija Këlliçi ³⁰ Chairman Mechanical Engineer					
2	Ismet Elezi Scientific Secretary		3	Raqi Iffica Head of the Party Committee	
Members					
4	Kol Paparisto	Chemistry	19	Gjovalin Gjadri	Construction Engineer
5	Hasan Duma	Philology	20	Tahir Haxhiymeri ²⁾	Mechanical Engineer
6	Stefanaq Pollo	Linguistics	21	Reiz Çani	Electrical Engineer
7	Androkli Kostallari	Linguistics	22	Zihni Sinoimeri	Geology
8	Mahir Domi	Linguistics	23	Sotir Kuneshka ³⁾	Physicist
9	Aleks Buda	History	24	Kol Popa	Chemistry
10	Selim Islami	Archaeology	25	Petraç Pilika	Mathematics
11	Aleksander Xhuvani	Philology	26	Pleurat Xhuvani	Economy
12	Medar Shtylla ¹⁾	Veterinary medicine	27	Petro Lalaj	Philosophy
13	Fejzi Hoxha	Medicine	28	Kiço Glozheni	Physician
14	Fadil Spahiu	Medicine	29	Kole Dushniku	
15	Xhavit Gjata	Medicine	30	Islam Zeko	Biology
16	Luan Omari	Law	31	Minella Karajani	Chemistry
17	Kiço Negovani	Construction engineer	32	Petro Cani	Physician
18	Petrit Radovicka	Hydropower	33	Shefqet Kruja ⁴⁾	Economist
Correspondent (external) members					
1	Dhimitër Shuteriqi	Historian	3	Ilo Mitkë Qafëzezi	Self-taught historian
2	Spiro Konda	Philologist	4	Pasko Milo	
			5	Muntas Shehu	Ministry of Education

¹⁾ Director of the Higher Institute of Medicine and after 1957 Dean of the Faculty of Medicine

²⁾ First Dean of the Faculty of Engineering

³⁾ First Dean of the Faculty of Natural Sciences

⁴⁾ First Dean of the Faculty of Economics

In the early 1960s, the first dissertations (in search of the degree “Candidate of Technical Sciences”³¹⁾ were presented and defended at the Faculty of Engineering. Among the

³⁰ Prof. Zija Këlliçi, was chairman of the Scientific Committee until 1961, the year in which the Rector of State University of Tirana was appointed Mr. Kahreman Ylli, (who graduated from *Académie des Sciences, Belles-Lettres et Arts de Lyon*, France, for pedagogy and psychology). Mr. Kahreman Ylli has been Minister of Education and Culture from 1949 to 1952 and Deputy Minister of Education from 1952 to 1961.

³¹ Candidate of Sciences (*Russian*: кандидат наук) is the first of two scientific degrees in Russia, post-Soviet countries, and East European countries. (formally classified as UNESCO ISCED level 8, “doctoral or equivalent” degree). The candidate of

professors who received the degree of Candidate of Sciences were Zija Këlliçi, Burhan Jukniu, Reiz Çani, Kiço Negovani, Tahir Haxhiymeri, Fehmi Shehu, and Dhimitër Mihali.

In 1967 in Lura (Mat district) a Banci-type hydro turbine (manufactured by the mechanical workshop of the State University of Tirana) was installed, and supplied electricity to three villages in the area.

In the 1960s the publication of textbooks for all the branches of engineering began. They were published for the most part by the Publishing Unit at SUT, in the form of lecture notes books, and partly by the publishing houses "November 8" and "Naim Frashëri" in Tirana. The "University' Book" Publishing House was established only in the mid-1980s.

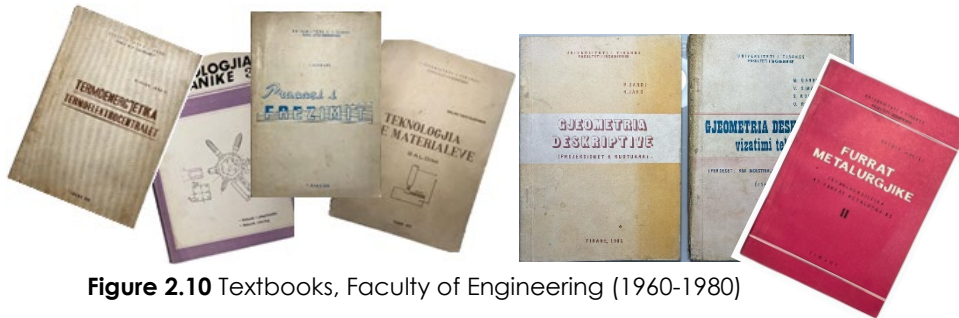


Figure 2.10 Textbooks, Faculty of Engineering (1960-1980)

Table 2.7 Scientific Council of the Faculty of Engineering (1958)

1	Kiço Negovani Chairman		
Members			
2	Z. Këlliçi	8	G. Stazimrio
3	P. Radovicka	9	I.Ndoja
4	F. Shehu	10	M.Dragovoja
5	T. Haxhiymeri	11	P. Stratobërdha
6	R. Çani	12	B. Daja
7	Mr. Sinojmeri	13	E. Floqi

sciences degree was obtained by defending the dissertation (thesis) after passing the aspirantura's phase (postgraduate studies or doctorate). In Albania, the change in this system of academic degrees and titles started with Law no. 7810, dated April 6, 1994, "On higher education in the Republic of Albania".

PERIOD AFTER 1961

From 1961 until the late 1970s, several dozen students and specialists, mainly in engineering, studied and qualified in the People's Republic of China (about 290 students graduated in the People's Republic of China by 1978,³² a very small number compared to the number of students sent to the USSR).



Figure 2.11 The specialist from the People's Republic of China advises the Albanian colleague

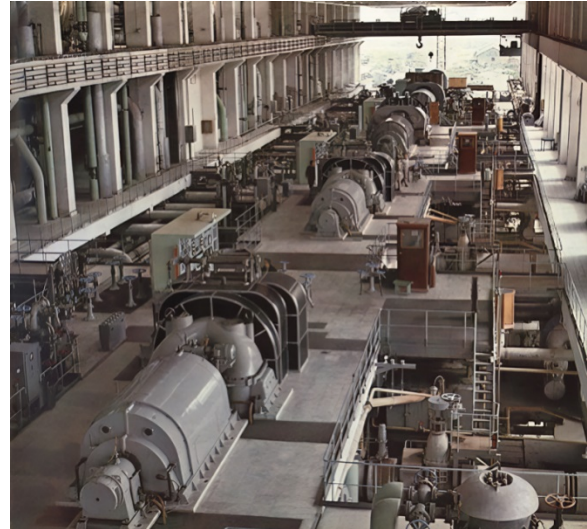


Figure 2.12 HPP "Friedrich Engels" River Mat Shkopet 1963

In the 1960s, the Faculty of Engineering had about 15 invited foreign specialists and professors. During this period, the qualifications of the teaching staff of the Faculty of Engineering were generally short-term (1-6 months) in the People's Republic of China and then within the UNESCO programs.³³ Among the professors who benefited from these specializations (in the universities of France, Italy, and Romania) are:

³² Jiafu, C. (2012) "Historical Research on the Educational Structure of International Students in China from 1950 to 2010" Shanghai.

³³ UNESCO – United Nations Educational, Scientific and Cultural Organization is an agency of the United Nations (UN) aimed at promoting world peace and security through international cooperation in education, arts, sciences, and culture. It was founded in 1945. Albania is a member of UNESCO since 1958.

Reis Çani, Jorgji Kushi, Ali Dedej, Petraq Vasili, Besnik Zeraliu (electric engineering), Kiço Negovani, Xhemal Gjata (building construction), Ali Progri, Petraq Dushniku (mechanical engineering) Rexhep Reka (geology) etc.



Figure 2.13 Professors from P.R. of China, (1970)³⁴

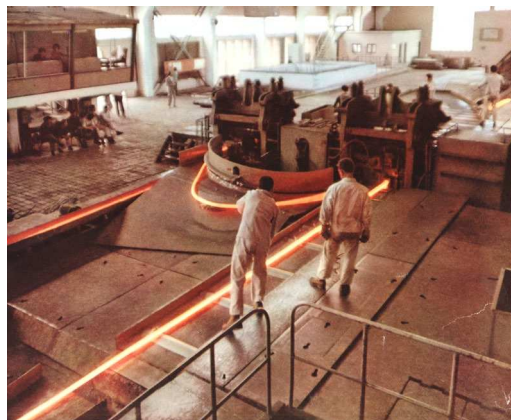


Figure 2.14 Metallurgic Plant 1969

Despite the almost complete isolation of Albania in the late 1970s, during the period 1975-1990 over 200 students (some of them for Ph.D. studies, mainly in France³⁵) and about 300 Albanian specialists in natural sciences, engineering, and humanities³⁶ – studied or specialized in universities, institutions and scientific laboratories of France, Italy, Austria, Romania, Sweden, Greece, etc. The mobilities of the Albanian students and experts were funded by bilateral agreements of the Albanian Government with other countries or by international organizations, such as UNDP³⁷, UNESCO, IAEA,³⁸ etc. The cooperation agreements with France and Italy were expanded and the university benefitted from the tech-

³⁴ SUT archive.

³⁵ "...about 75% of PhDs were performed in France" King R., Gëdeshi I., *"Migrimi aktual dhe potencial i studentëve nga Shqipëria: një "Brain Drain" i mundshëm?"* Tiranë, November 2020, Edition of Friedrich-Ebert-Stiftung Foundation.

³⁶ Ibid. page 22

³⁷ UNDP – The United Nations Development Programme, is a United Nations organization tasked with helping countries eliminate poverty and achieve sustainable economic growth and human development, founded in 1966. Its headquarters are in New York City (USA).

³⁸ IAEA – International Atomic Energy Organization, was established as an autonomous organization on 29 July 1957. IAEA reports to both the United Nations General Assembly and Security Council.

nical assistance of international organizations to train its staff (e.g., the 1983' program for the transfer of the information technology, UNDP/UNESCO ALB/81/001). Consequently, by 1985 in France, there were 53 Albanian undergraduate and postgraduate students³⁹; whereas 10 years ago, from 1971 to 1974, there had been only 20.⁴⁰

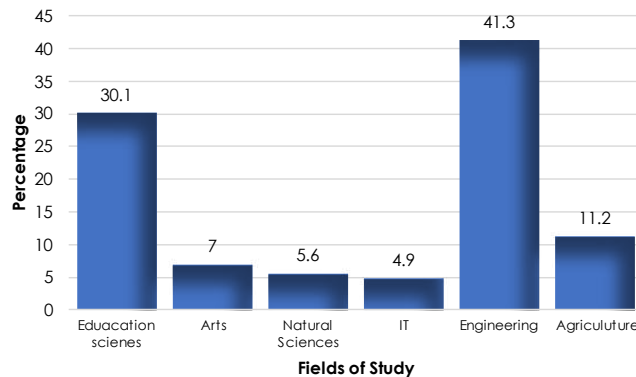


Chart. 2.3 Percentage of short and long term studies in western universities (1975-1990)

Chart 2.3 shows in fact that the engineering industry (followed by agriculture) was the focus of the economic strategy of that time regime, therefore the training of specialists in the field of engineering in Western European countries accounts for 41.3% of the total. Many of them were professors of the Faculty of Engineering. Undergraduate or postgraduate studies abroad in this period, in the field of engineering, in most cases were in metallurgy, oil extraction, geology, and mechanical industry.

The Faculty of Engineering in 1964, similarly to the Higher Polytechnic Institute of Tirana, had the academic staff organized based on chairs, whereas the teaching was organized by branches. Before 1970 the mechanical branch had 2 chairs: Mechanical Technology (responsible T. Haxhiymeri) and Machines (responsible Pëllumb Karaulli). In 1970, the chair of Machines was divided into 3 chairs: Mechanical Constructions (head of chair Pëllumb

³⁹ AQSH, F.511, V.1985, D.161, Fl.n.α. [Embassy Paris to Tirana, Ministry of Foreign Affairs: Report on the system and accommodation of students and postgraduates for the academic year 1985–1986. On 16 December 1985].

⁴⁰ Shahini A., "Sullied: The Albanian Student Movement of December 1990" *Front. Polit. Sci.* 3:708881. doi: 10.3389/fpos.2021.708881

Karaulli), Machines (head of the chair Fehmi Shehi), and Thermo-technics (head of the chair Burhan Jukniu). After 1964, the position of branch manager was not included in the organizational structure of universities and faculties. During the same year, profiles were created in the mechanical engineering study program:

- Profile Agricultural-related transport
- Profile Industry-related
- Profile Technology

The first Branch-Campus⁴¹ of the State University of Tirana was established on February 2, 1968, in Berat, a city about 100 km south of Tirana. The Berat Branch Campus had the following study programs:

- Mechanical engineering,
- Textile engineering⁴² (technology),

Table 2.8 Graduates by study programs in the Faculty of Engineering

Branch \ Year	1955		1960		1961		1962	
Day / evening	F ¹⁾	P ²⁾	F	P	F	P	F	P
Electrical	16	1	23	-	16	-	33	3
Geology	-	-	12	1	39	-	54	-
Mechanical	19	-	10	-	20	-	45	-
Mines	-	-	-	-	10	-	-	-
Civil Construction	22	1	25	-	19	1	28	5
Topography	-	-	14	-	11	-	24	-
Oil extraction	-	-	-	-	-	-	6	-
The faculty in total	57	2	84	1	115	1	190	8

¹ full-time studies

² part-time studies

In the first academic year 1968-69, the branch campus of the SUT in Berat had 140 students. The students in this branch campus were mainly from the districts of Shkodra, Korça,

⁴¹ A branch campus is one that's affiliated with a specific university but not in the same location (usually abroad). In this case, another name might be the *Satellite site* (of a university).

⁴² This branch campus of the SUT was established in the city of Berat, due to construction in this city of Textile Plant (Combine) "Mao Zedong" (which was the greatest Cotton Textiles Combine in Albania in terms of production and number of workers).

and Tirana and from the district of Berat itself. The opening of the SUT Branch in Berat was followed by branches in several other cities. In 1968, the branches of the State University of Tirana received a significant expansion, especially in the study programs of economics, engineering, and teaching. Branches of SUT opened in Shkodra, Vlore, Elbasan, Gjirokastër, Korça, Durrës, etc. Lessons in the “evening” schools at branch campuses took place 3 times a week and the duration of studies was 5 years. The opening of the SUT Branches created a massive interest in the further education people already employed, thus gradually raising the levels of knowledge, professionalism, and specific qualification.

In 1968, the branch campus of the State University of Tirana was opened in Korça, which from the academic year 1969 - 1970 had the following study programs:

- Economics for industry and finance for industry,
- Mechanical engineering.

In 1971 the SUT branch campus in Korça joined the newly established Higher Agricultural Institute in this city.



Figure 2.15 SUT branch in Durrës, (1971)

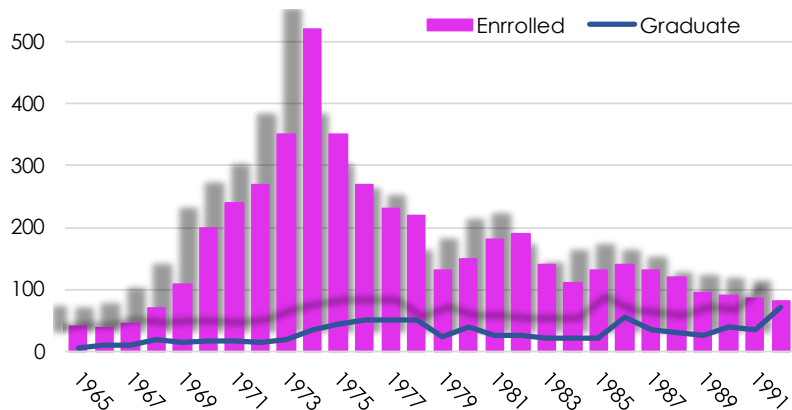


Chart 2.4 Number of students in Mechanical Engineering (part-time system)

SUT branches with the study programs mechanical engineering, economics for industry, and finance for the industry were attached to the Higher Pedagogical Institutes in Shkodra (founded in 1957) and Elbasan (founded in 1971)



Figure 2.16. Commemorative emission of postal stamps on the occasion of the 10th anniversary of SUT, 1967



Figure 2.17 Celebrations of the 10th anniversary of SUT (1967)



Figure 2.18 Order of First Class "Red Flag of Labour"⁴³ awarded to the SUT in 1967

The Shkodra branch campus of SUT was established in January 1969 in Vau i Dejës, where the Hydro Power Plant "Mao Zedong " was being built. In the second semester of the academic year, 1969 – 1970 this branch of SUT moved to the city of Shkodra. Later, in addition to the above branches in the Shkodra branch, the study programs of electrical engineering, civil construction engineering, and veterinary were opened. In the academic year 1971-1972, the six programs of the SUT Shkodra Branch merged as a unit with other

⁴³ 10th decoration (award) in order of precedence in the People's Republic of Albania (1946-1976). Schena E.R., "Decoration in Socialist Albania. An introductory guide" 2nd Edition, 2006.

branches (study programs) offered by the Shkodra Higher Pedagogical Institute but continued to maintain the connection with the respective chairs at the State University of Tirana.

Since 1952 the *part-time* system in mechanical engineering operated also in Tirana at SUT. The term of study here was 6 years, and the diploma was equivalent to that of the full-time system, where the term of study was 5 years. The number of enrolled students in the part-time system of study⁴⁴ is presented in Chart 2.4. This system of study for engineering programs ceased to exist after 1992. The establishment of SUT was commemorated on its 10th anniversary in 1967. For this jubilee, the Presidium of the People's Assembly of the People's Republic of Albania awarded the State University of Tirana the order of first-class "Red Flag of Labour" (Figure 2.18) and the Albanian Post Telegraph Telephone Company (PTT) produced a series of postage stamps for this occasion (Figure 2.16).

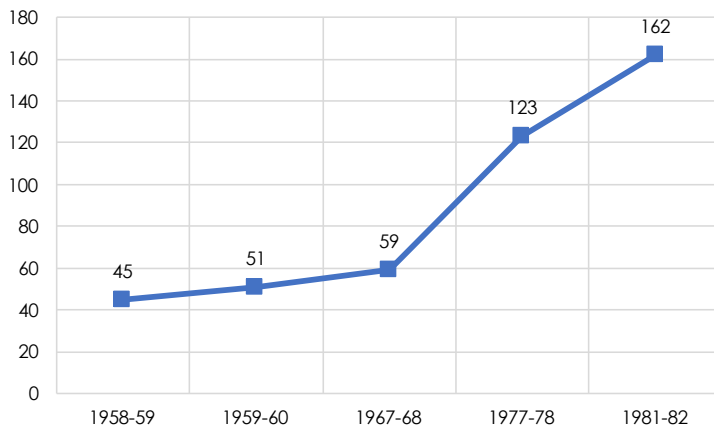


Chart 2.5 Academic Staff at the Faculty of Engineering
1958 – 1982



Fig 2.19 Order of the Flag⁴⁵ awarded to UT
(1982)

In 1969 the Faculty of Engineering opened a study program in Radio Broadcasting (later electronics), as well as the study programs in architecture and metallurgy, thus further di-

⁴⁴ a form of higher education so-called "evening system of study".

⁴⁵ 4th decoration (award) in order of precedence in the People's Socialist Republic of Albania (1946-1976). Schena E.R., "Decoration in Socialist Albania. An introductory guide" 2nd Edition, 2006.

versifying the curricula. In 1970 at the Faculty of Engineering, the geodesy branch was added, and in 1982 also the textile engineering 5-years study program was opened.

Table 2.9 Graduated vs. enrolled students in the period 1957-1967

Enrolled students in the period 1957-1963			Graduates 1961-1967			
the Faculty of	in total	1962 (5 years) 1963 (4 years)	in total		Total in 1967	
	1	2	Number ¹⁾	% 3/1	Number ²⁾	% 5/2
	1	2	3	4	5	6
Engineering	1 045	270	505	48%	90	33%
Geology and Mines	520	125	295	55%	50	40%
Economics	415	85	264	63%	39	46%
Natural Sciences	1 230	333	904	73%	199	59%
History-Linguistics	690	155	578	84%	113	73%
Medicine	1 115	275	806	81%	171	62%
Jurisprudence	165	25	115	69%	20	80%
University	5180	1270	3467	67%	682	54%

¹⁾ This number also includes the graduates from students that interrupted study abroad and students that did not complete their studies on time. ²⁾ Only students enrolled in 1963-1967

The textile engineering study program was offered from 1968 to 1984 at the SUT's branch campus in Berat, as a *part-time* or evening system. In 1972 and 1984 at the Faculty of Engineering, the Chair of Metallurgy and the Chair of Textile were established. The Metallurgy was established thanks to the contribution of the professors Hajredin Kumbaro, (director of the Research Institute in Metallurgy in Elbasan), Kristaq Kuneshka (graduated in Poland), etc. The Textile Department was established with the contribution of the Head of the Research Institute in Light Industry, Prof. Taxhedin Baholli (graduated engineer and then master/magister at the University of Łódź, Poland) as well as professors Kozma Xhero, Eva Budina, Shega Shaplo, etc. (graduated in Poland and USSR universities).

The University of Tirana was decorated in 1982 on the occasion of the 25th anniversary of its establishment, with the Order of the Flag (Figure 2.17). As in the period 1951-1957 (Higher Polytechnic Institute of Tirana), after 1957 the phenomenon of not completing studies on time was more pronounced in the mechanical engineering study program. Out of 129 students enrolled in 1962, only 41 graduated in 1967, or 32%, meanwhile in the civil engineering/construction branch out of 93 admitted only 27 students graduated, or 30%

.



2.3 INTERNSHIPS

IN THE PERIOD 1957 to 1990 the internship of the students of the Faculty of Engineering in the branches of mechanics, textiles, and metallurgy constituted one of the basic elements of the study program. The duration of the professional internship was generally 4 weeks in each academic year.

The statute of the State University of Tirana stipulated that:

"Internship and production work of students [...] are led by didactic-scientific staff assigned by chairs and by employees of enterprises or institutions"

The first and second-year students of the branches of mechanics, metallurgy, and textiles performed the professional internship (the subject was named "Production work and professional internship") in the Mechanical Workshop of the Faculty of Engineering. The mechanical workshop acquired in the late 1950s as part of USSR aid was equipped with

almost all types of metal-cutting machines, and also had a blacksmith's shop, a welding shop, and a car repair shop.

The internship was performed 8 hours a day, 6 days a week (4 weeks), and was organized in 2 shifts. The workshop functioned as a normal enterprise with production quotas and the students in the work had the assistance of the best professionals in metal cutting machines, such as Telat Mehmeti, and Vangjel Adhami (welder), Mihallaq Goxhaj, Et'hem Zajmi, Vath Patogu (blacksmith). Xhemal Tafaj, Luan Reka, Agron Mjolli, Edmond Zhegu, Fatmir Qadhima, Artan Bogdani, Shaban Dibra (blacksmith), Selman Hysi, Shkëlqim Bici, Eduard Seferi, etc. Initially, the Mechanical Workshop and internships of the students were run by the assistant Eng. Xhevat Kapedani. In the 1970s and 1980s, the head of the mechanical workshop was Eng. Lulzim Turkeshi and shift chief Fatmir Laçi and Shefqet Husha. Since 1990 the head of the mechanical workshop is Mr. Shkëlqim Bici.

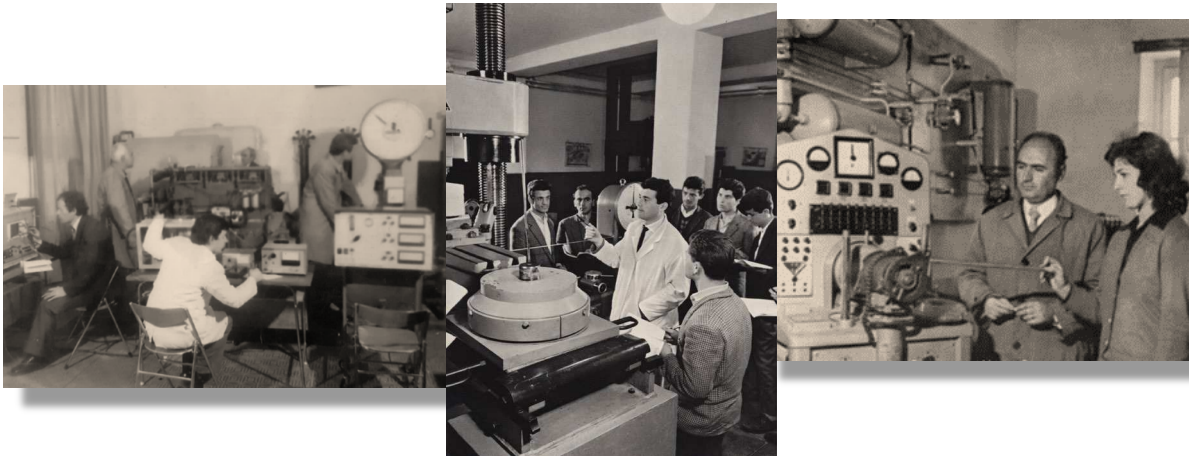


Figure 2.16 Laboratories of Engine repair (1979) and Mechanical technology (1974)
(in photo R. Karapici, N. Kuka, S. Gjirjo dhe A. Londo)

Senior years students (3rd and 4th years students) performed an internship in mechanical enterprises according to the profiles of the branch of mechanical engineering. While students of the textile and metallurgy branches respectively in textile enterprises and metallurgical enterprises or the Metallurgical Plant in Elbasan.

From 1974 to 1985, final year (5th) students completed the internship simultaneously with the preparation of the diploma thesis. During this period the student, who was in the phase of preparing the diploma thesis, worked in an enterprise where in addition to "productive work" (13 weeks) had the opportunity to do the experimental part of the diploma thesis. The internship of the final year was performed near mechanical plants in Tirana or other cities.

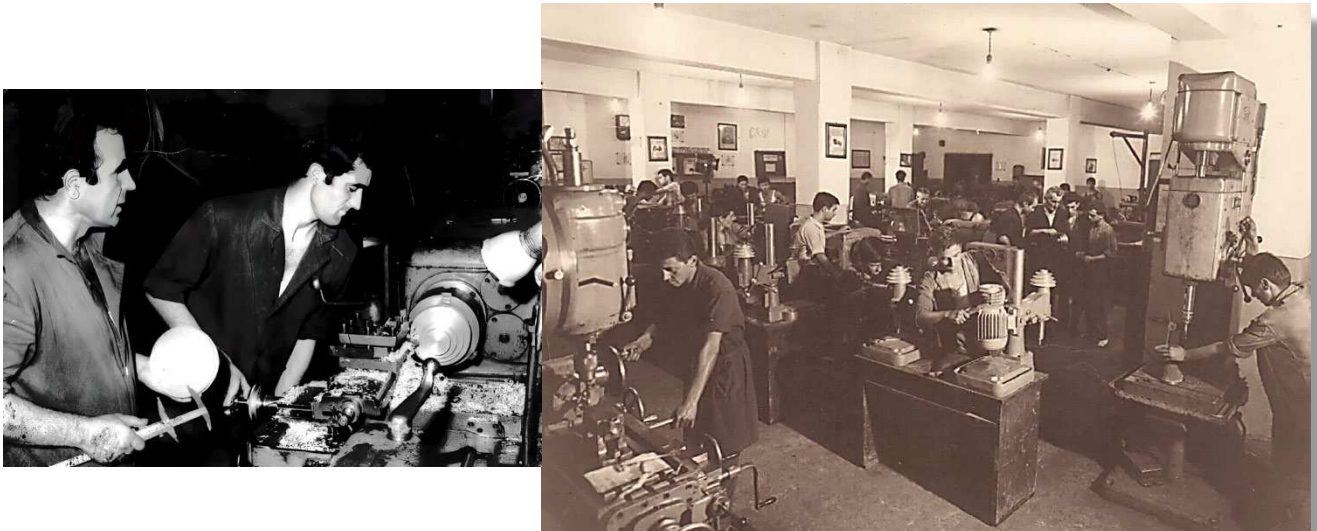


Figure 2.17 Mechanical workshop in Faculty of Engineering



2.4 1967, REVOLUTIONIZING

IN ADDITION TO the professional internship, after 1967 (i.e in the academic year 1968-1969), subjects related to military training were introduced in study programs, and also in courses related to Marxist theory teaching hours were increased. This was termed the “revolutionary triangle” (Education – Work – Physical exercise and military preparation), inspired by the Chinese Maoist Cultural Revolution⁴⁶. The Albanian version⁴⁷ of this

⁴⁶ Formally known as the *Great Proletarian Cultural Revolution* – was a socio-political movement in China from 1966 until 1976. Launched by Chairman Mao Zedong (1881-1976), its stated goal was to preserve Chinese communism by purging remnants of capitalist and traditional elements from Chinese society and to re-impose Mao Zedong Thought as the dominant ideology in the PR of China. Death toll estimates vary widely, with roughly 1.1 – 1.6 million perishing during the Revolution. Economic damage was about US\$120 billion. Universities were closed from 1966 until 1972 (at least most of them).

⁴⁷ The Cultural Revolution in Albania wasn't an identical copy of the Chinese Cultural Revolution. It was a campaign launched by Mr. Enver Hoxha *de facto* leader of the People's Republic of Albania, aiming for radical changing in social and

"Revolution" was named **revolucionarizimi** (revolutionizing), or "Cultural and Ideological Revolution" in the period 1967-1971, and "Struggle against liberalism" from 1973 to 1976. The revolutionizing campaign directly affected even higher education in Albania through

- increasing the weight of indoctrinating components in university curricula;
- reduction of the number of the textbooks translated from foreign scientific literature;
- about 10-15% of academic staff was removed, or transferred (e.g., to the industrial plants and agricultural cooperatives);
- student life was increasingly disciplined⁴⁸;
- political and class criteria in enrollments in university became even more exclusive;
- the party and the youth organization⁴⁹ had a greater role in the academic and administrative affairs of the university;
- campaigns where everyone was criticized (accused) for everything and anything, in meetings or with "fletë – rrufe" (wall leaflets⁵⁰ which in most cases were anonymous)
- all students graduating from secondary school are required to undergo a probationary period at production work before being admitted to any higher educational institution. No one who has not worked for one year as a simple laborer and received the approval of his workers' collective will be passed for further education. The opinion of the "working class" in the enterprise, where the young man had completed the internship, was crucial in approving the university enrollment;
- after the end of the study period, students had to complete the so-called "stazh"⁵¹ – 8-9 month production internship according to the branch, while preparing for the diploma thesis.
- the study period was shortened by 1 year.

political life. The "greatest achievement" of this campaign was religion's banning and proclamation of Albania as the world's first atheistic state.

⁴⁸ Shahini A, "Sullied: The Albanian Student Movement of December 1990", 2021

⁴⁹ Youth Union of Labour of Albania (Albanian: Bashkimi i Rinisë së Punës së Shqipërisë) was the youth organization of the Party of Labour of Albania, founded on November 23, 1941, as the Communist Youth of Albania.

⁵⁰ The Communist Youth Organization (Youth Union of Labour) used posters/ leaflets (in Chinese *dazi bao* – denigrating poster) in the revolutionary campaign against intelligence and bureaucracy. The victims of the campaign were also well-known professors such as E. Çabej, M. Karajani, the former rector of the State University Zija Këlliçi, and the well-known writer Lasgush Poradeci, who were accused of being representatives of the "old capitalist regime".

⁵¹ Стаж (Russian probation period) – a trial period to assess a new employee's skills and gain practical experience in his or her specialty

In contrast to the Chinese Cultural Revolution, the *Revolutionizing* in Albania was led by the party leadership⁵² and had a clear agenda to crack down on bureaucracy, and religion, and to limit foreign influences by attacking mainly the Catholic Church and the legacy of the "Soviet" period. The four pillars of the revolutionary "movement" were: (i) prohibition of religion, (ii) the emancipation of women, (iii) the revolutionizing of education, and (iv) the revolutionizing of the arts. In this action of the ruling party, the youth of high schools and universities organized by the Labour Youth Union of Albania was used as a "revolutionary shock force"⁵³.

Durante il regime comunista nessuno dei giovani aveva la possibilità di compiere una scelta libera. Il partito sceglieva per me, [...]. Lo Stato decideva di quanti ingegneri, fisici, matematici, chimici, biologi, architetti, scienziati, economisti, pittori, e giornalisti avesse bisogno.
"Verginità rapite" Ismete Leba 2015⁵⁴

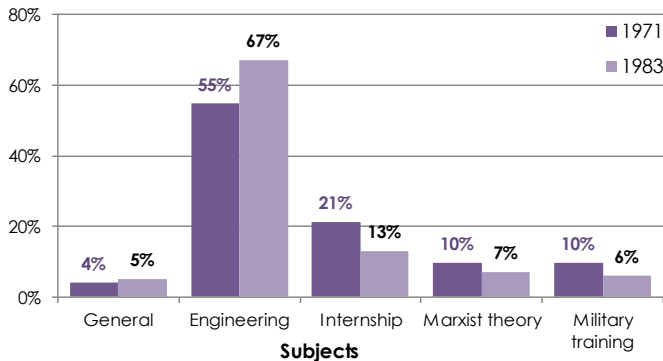


Chart 2.6 The percentage of subject groups in the engineering curricula in 1971 and 1983



Figure 2.18 Parade of armed female students (1968)

⁵² Biberaj E., "Albanian Chinese relation 1962-1969"

⁵³ "Student agitators combed the countryside, forcing Albanians to quit practicing their faith." Zickel R., Iwaskiw W.R. "Albania. A country study". Federal Research Division, Library of Congress USA, 1992. Page 50

⁵⁴ "During the communist regime none of the young people had the opportunity to make a free choice. For me, the Party chose, [...]. The state decided how many engineers, physicists, mathematicians, chemists, biologists, architects, scientists, economists, painters it needed". "Thorn and rose" (title of the Albanian edition) Ismete Selmanaj Leba 2015. Mrs. Leba graduated in the 1970s in civil engineering at the University of Tirana.

"[...] atheist communism educated a whole generation without consciousness, that is, with inhuman ideals, with a lack of respect for the person, [...], introduced a spirit that was neither the spirit, nor the Albanian national tradition, nor the tradition of European humanism

Vatican News February 06, 2019

Since its establishment in 1957, Party Committee with its full-time secretary had been set up within the structure of the SUT, and full-time "cadres" were appointed to lead the Youth Organization Committee (Labour Youth Union). These two structures had the task of implementing the "revolutionary" campaign in 1967 in the university and society. The "Revolutionizing" has its starting

point in the speech held by the Albanian Labour Party's First Secretary (chairman), Mr. E. Hoxha, on February 6, 1967⁵⁵, in a joint meeting with the communists of the Kërraba coal mine; Military Detachment no. 5009, "Enver" Engineering Plant, "Wilhelm Pik" Agricultural Cooperative (Mëzes) and State University of Tirana.⁵⁶ By the mid-1970s the academic staff was reduced by 15%, while student enrollments fell by 25.5% (from a figure of 28,600 students enrolled in 1973, at SUT in 1976 only 21,200 were enrolled, this can also be seen in Chart 3.1). In 1966 the SUT Statute was revised to reconfirm its mission as an institution of higher education. According to the first article, the university was a higher educational-scientific institution, under the Ministry of Education and Culture and aimed at:

*"To prepare highly skilled experts for the various sectors of the People's economy, educated by Marxist-Leninist ideology, able to acquire the new achievements of science, ... to connect theory and practice in building a socialist society and ready to faithfully defend the socialist homeland"*⁵⁷

It should be noted that higher education was free, but political criteria continued to apply to student enrollment under the established quotas. An instruction from the Ministry of Education and Culture of 1967, addressed to the commissions responsible for reviewing applications for university enrollment, stated:

"... take care [...] of the political and social position of the [applicant's] family as in the past and now. "

⁵⁵ Later that fall, Beijing's Foreign Languages Press published the Albanian edition of the *Little Red Book* (quotations from Mao Zedong) the "bible" of the Chinese Red Guards.

⁵⁶ Prifti, P., "Revolucioni Anti-fetar i shkurtit të 1967 dhe pasojat e ateizmit në Shqipëri" 2018.

⁵⁷ Gazeta Zytare, viti 1957, nr. 9, dt. 10 gusht 1957, fq. 314-330. Vendim i Këshillit të Ministrave, nr. 256, dt. 3 korrik 1957 "Mbi aprovimin e statutit të USHT"

MOST IMPORTANT EVENTS IN THE WORLD, JANUARY - FEBRUARY 1967

Monday, 02 Jan. Ronald Reagan was sworn in on January 2, 1967, as Governor of California

Tuesday, 03 Jan. A group of at least 20 members of China's Red Guards appeared at the section of Beijing, where prominent party leaders lived, and invaded the residence of President Liu Shaoqi and his wife, then ordered them to listen to a 40-minute lecture about Liu's failures

Wednesday, 04 Jan. The "January Storm" revolution began in China's largest city, Shanghai, and the takeover of the existing Communist municipal government and its newspapers, radio stations, and television station.

The Smithsonian Astrophysical Observatory confirmed the existence of a 10th moon orbiting the planet Saturn, which is named Janus

Thursday, 05 Jan. London premiere of Charlie Chaplin's last film, A Countess from Hong Kong. Starring Sofia Loren and Marlon Brando.

Monday, 09 Jan. Radio stations across China began broadcasting the "Urgent Notice" that had originated in Shanghai, with the warning that "All those who have opposed Chairman Mao, and the Communist China Red Guards, will immediately be arrested and be punished as saboteurs of the Cultural Revolution

Wednesday, 11 Jan. Deng Xiaoping, who would serve as the leader of the PR of China from 1978 until 1997, was demoted along with several other members of the Communist Party Politburo.

Sunday 15 Jan. Ma Sicong, the premier violinist in China, escaped the People's Republic and fled by boat to Hong Kong. The Rolling Stones appeared on The Ed Sullivan Show for the second time, but only after acceding to a demand by Sullivan to alter the words of their hit song, "Let's Spend the Night Together".

Monday, 23 Jan. A border conflict broke out between the Soviet Union and the People's Republic of China in a territorial dispute over an island in the Ussuri River.

Tuesday 24 Jan. President Johnson presented a record 135-billion-dollar U.S. government budget to Congress for approval for the fiscal year 1968. 72 billion were for military spending.

Thursday, 26 Jan. The road leading to the main gates of the Soviet Union's embassy to China in Beijing was blocked by a mob of thousands of demonstrators, including students, Red

According to the decision of the PLA Politburo, dated March 7, 1967, the university, primarily had to create the "new man", with the Marxist worldview and this would be done not only through the introduction of Marxist theory subjects in the curriculum but

*"also through other subjects, which had to be based entirely on Marxist ideology"*⁵⁸

Secondly, the emphasis was on the connection between teaching and "life and work for the construction of socialism" and thirdly, the task of the university was to prepare specialists for the needs of economics and "soldiers of socialism". (sic)⁵⁹. The guarantee for this would be to put schools and universities under:

"...direct and systematic control of the broad masses of workers, especially the working class and the cooperative peasantry."

Regarding the scientific research, the Party "assessed" that:

"It would be a mistake to think that the technical-scientific revolution will be made by some learned people ... No, like any other revolution it will be made by the broad masses of workers!"⁶⁰

⁵⁸ E. Hoxha "Mbi revolucionarizimin mëtejshëm të shkollës sonë" ("On further revolutionizing of our education") 1967

⁵⁹ Godole J. et. al "Komunizmi, rina dhe "revolucioni ideologjik dhe kulturor" (1967-1971)" Tiranë 2020, page 8.

⁶⁰ Hoxha E., "Raporte dhe fjalime 1967-1968", page 255.

Saturday, 4.02 China's Communist Party issued its "Circular Concerning the Great Proletariat Cultural Revolution in Elementary Schools", instructing that all teachers and students must return to schools and that classes, suspended since June 1966

NASA launched the unmanned satellite Lunar Orbiter 3

Sunday, 5.02 General Anastasio Somoza Debayle was elected President of Nicaragua in a contest that his opponents said was marked by fraud.

Monday, 06.02 Albania's Communist Party leader and *de facto* leader, **Enver Hoxha, made a speech** which he called "Programmatic Discourse against Religion and Backward Habits", beginning a campaign to make Albania what he called "the world's first atheist state". By the end of the year, 2,200 churches, mosques and other places of worship were closed or even burned down, clerics were arrested, and professing to have a particular faith was derided as "religious superstition"

WBC world heavyweight boxing champion Muhammad Ali defeated the WBA's heavyweight champ, Ernie Terrell, at the Houston Astrodome

Soviet Premier Alexei Kosygin arrived in London to begin the first of five private conferences with British Prime Minister Harold Wilson.

Died Martin Carol, French film actress described as "a French version of America's Marilyn Monroe"

Wednesday, 8.02 U.S. President Lyndon Johnson sent a letter to North Vietnam's President Ho Chi Minh

Sunday 12.06 In West Sussex, British police raided the home of the Rolling Stones. No arrests were made at the time, but Richards, Mick Jagger and art dealer Robert Fraser would subsequently be convicted of possession of drugs.

Wednesday, 15.02 Ten people were killed and 12 others injured in a chain reaction explosion at an ammunition manufacturing plant near Texarkana, Texas

Thursday, 16.02 Tan Zhenlin, one of the Vice Premiers of the People's Republic of China, at a high-level session of the Chinese Communist Party denounced the Cultural Revolution and declaring that he would fight the ultra-leftists even if it meant imprisonment or death

Saturday, 18.02 Nazi war criminal Franz Stangl was arrested in Brazil, where he had been working as an engineer in a Volkswagen factory since 1951 using his own name.

Monday, 20.02 Born Kurt Cobain, American musician and artist, leader of the band Nirvana

Thursday, 23.02 In Xining, the capital city of China, 169 civilians and four soldiers were killed in a violent confrontation when troops of the People's Liberation Army (who had been forced out by the Red Guards) came in to retake control of the city's newspaper

Saturday, 25.02 Civil rights leader Martin Luther King Jr. began speaking out at length against American involvement in the Vietnam

War

Thus, in the context of *revolutionizing*, SUT students were added another month and a half of "*physical work*" in each academic year. Students had to work as "volunteers" (meaning: unpaid) in sectors of the economy that in most cases had nothing to do with the profession they were studying for. (such as agriculture, building a railway network, etc.).

Although in 1963 the second reform (after that of 1946) was carried out in the education system (with the Law "On the organization of the education system in the Republic of Albania"), in 1969 the law "On the new education system" was decreed.⁶¹ The purpose of this new educational reform was to emphasize the Marxist axis, which should have the curricula and the organization of the university. The restructuring of SUT curricula as part of the "*revolutionary*" education reform was completed in 1971.

In 1969 the government proposed a militarized curriculum for students in high schools and universities with the following structure: 55-56% study, 26-27% internship or "voluntary work", and 17-19% military and physical training.

⁶¹ "[...] a reform of the educational system with the aim of eradicating any remaining Soviet influence". Nicholas C. Pano, "The Albanian Cultural Revolution", Problems of Communism, 23, no. 4 (July-August 1974), pp. 44-57.

In the engineering programs were added subjects "Military training in the auditorium" (semester course) and "Group military training" (in the '1960s to the mid-1970s military training lasted one month, after 1976 - 17 days).

A military officer was assigned to each faculty in the role of supervisor of theoretical teaching and military training (at the level of deputy dean). Also was established the chair of military subjects. From 1968, before graduation, students completed a 6-month training for Army Reserve officers in artillery, communication, military construction civil works, and navy. Also, the weight of Marxist theory subjects in curricula increased. In the engineering curricula were introduced subjects: "*History of the PLA*", "*Political Economy*" (of capitalism and socialism), "*Dialectical Materialism*" and "*Historical Materialism*". In 1967 the study lasted only 4 years and the 5th year served for the practice, production work, and preparation of the diploma thesis. In the last year, in addition to the diploma thesis, students had to pass a final exam in Marxist theory.



Figure 2.19 So-called volunteer brigades of students of SUT, (1969)



Figure 2.20 "Comrade Enver teachings"⁶² became a guide for the "new man"

In the revised curricula of the Faculty of Engineering, the weight of ideological subjects was about 10% of the total, that of military training about 10%, and internship and productive work about 21%, (excluding 6 months of military training after graduation and

⁶² At the height of revolutionary movement (revolutionizing) in the late 1960s, like *Little Red Book* of Mao Zedong, "*mësimet e shokut Enver*" ("*Comrade Enver teachings*") also became commonplace.

before the defense of the diploma thesis). University professors were under constant pressure to relate with a Marxist philosophy and the "teachings of the Party leader" even the issues addressed in engineering subjects:

"...Proletarian partisanship is a guiding principle for all the sciences, not only the social but also the exact ones, the technical and natural. It is very wrong to think that this no room for proletarian partisanship and the Marxist-Leninist pivot in the exact sciences" ⁶³



Figure 2.21 The Revolutionary Triangle "Education - Work - Exercise and military training"

These absurd curriculum interventions were somewhat mitigated in the late 1970s with the revision of curricula. Nevertheless, the consequences of the "revolutionizing" were felt negatively in the activity of the University in the following two decades (1970-1990). Chart 2.6 presents the relationships between engineering subjects, professional practice, subjects of ideological character (Marxist theory), and military teaching and training in the teaching load of the study programs at the Faculty of Engineering in 1971, compared to those in 1983. Despite the ideological pressure and the difficulties created by the hysteria

⁶³ "Rruga e Partisë" Reviews, No.1, January 1976, page 31.

of the so-called "*further Revolutionizing of the Party and the life of the country*", the academic staff of SUT, continued its mission, to prepare young engineers and to bring out personalities who served and still serve Albania (in the period 1951-1991 at the Faculty of Engineering over 15,000 engineers graduated).



2.5 STUDENTS' LIFE BEFORE 1990

SINCE THE establishment of the Higher Polytechnic Institute of Tirana in 1951, sports, entertainment, and accommodation centers for students have been part of the university infrastructure. In the 1960s, an urbanized center (Student Campus) was built in the hills southeast of Tirana, which provided accommodation for SUT students (excluding students of the Faculty of Medicine). In addition to the living quarters, Student Campus had several sports facilities, a cinema, a library, a discounted canteen, and a medical center. Students of low-income families were offered financial assistance within the planned annual contingent and based on the economic income criteria of their families.

The students had their own newspaper "*Studenti*" ("The student") (actually a publication of the SUT Committee of the Labour Youth Union of Albania (a youth organization of the ruling party). The newspaper was first published under the name "Student Voice" on March

2, 1967, and continued to be published until 1994. On the Student Campus, Radio "Student" broadcast from 5 am to 11 pm, but in fact, it was a sound center, which broadcast its programs through loudspeakers placed in every room of the student dormitory. The editorial office of the newspaper "Studenti" and the Labour Youth Union of Albania (LYUA) committee for the University had their offices in the main building of SUT. Entertainment activities on the Student Campus were numerous but were always organized and strictly supervised by the LYUA committee.



Figure 2.24. Newspaper "Studenti" in the 1970s



Figure 2.25. Students Campus 1964



Figure 2.26. Students club 1970

In the early 1980s the Student Campus was expanded with new accommodation buildings, while near the Faculty of Civil Engineering a new complex of buildings was built to accommodate the students of this faculty as well as students of the pharmacy branch at the Faculty of Medicine).

A Sports Club was founded by the Ministry of Education and Culture in 1953 under the name "*Studenti*", to represent the university in the national championships of football, volleyball, basketball, football, shooting, athletics, etc.

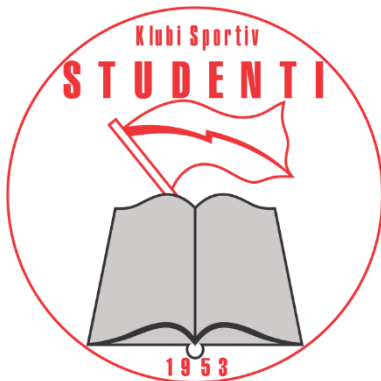


Figure 2.27. Logo of Sportiv Club "Studenti" and in the right a match of national Ligue in volleyball (female) (the 1980s)

Sports Club "*Studenti*" as a representative of the State University of Tirana has received the following trophies: 16 time national champion in men's volleyball, 5 times national champion (1953, 1970, 1971, 2003, 2005), and 4 times winner of Republic Cup (1969, 1970, 2004, 2005) in women's volleyball, 5 time national champion in chess (1973, 2003, 2004, 2005), first place in 3rd and 2nd Ligue of football, etc.⁶⁴ In 2017, the Sports Club "Student" passed under the administration of the Municipality of Tirana.

Today, the Students Campus (unlike European practice where such campuses are part of university services) is under the administration of the Municipality of Tirana, which plans to

⁶⁴ Trophies of the national championships of the 1st league. All sports teams/clubs in Albania from 1945 to 1991 were not professional.

offer this service on concession to a private company. Services in this Students accommodation center are paid and the price per accommodation does not differ much (given what is offered) from the prices in private residences, therefore today the number of students registered for accommodation in the city Student is decreasing from year to year.



2.6 COOPERATION WITH THE UNIVERSITY OF PRISHTINA

UNIVERSITY OF Prishtina⁶⁵ was founded according to the Law “On foundation University of Prishtina”, approved by Parliament (*Kuvendi*) of Socialist Autonomous Province of Kosovo⁶⁶ (in the SFRY)⁶⁷, on November 18, 1969. The Constituent

⁶⁵ Today University of Prishtina “Hasan Prishtina”, Latin name: *Universitas Studiorum Prishtiniensis*.

⁶⁶ Socialist Autonomous Province of Kosovo was the official name of Kosova in the period 1968 to 1990. From 1945 to 1963 official name was Autonomous Region of Kosovo and Metohija. 1963-1968 – Autonomous Province of Kosovo and Metohija; and 1990-1999 again Autonomous Region of Kosovo and Metohija which was the official name before 1968. Kosova was one of two autonomous provinces under the Socialist Republic of Serbia (1945-1990).

⁶⁷ Socialist Federal Republic of Yugoslavia (*Socijalistička Federativna Republika Jugoslavija*) – was the official name of Yugoslavia in the period 1963 to 1992. Before 1963 – the official name was the People’s Federal Republic of Yugoslavia (1945-1963).

Assembly of the University of Prishtina (UP) which was held on February 13, 1970, elected the first rector of the University of Prishtina, Prof. Dervish Rozhaja⁶⁸. Two days later, on February 15, 1970, the solemn meeting on the occasion of the establishment of UP was held. Therefore, February 15, in Kosova is the *Day of the University*. After the State University of Tirana, the University of Prishtina was the second Albanian language university. The first institutions of higher education in Kosovo were established in 1958-59, as branches of the University of Belgrade, and teaching was conducted in Serbo-Croatian (textbooks and professors came mainly from the University of Belgrade).

Pristina Higher Technical School was established in 1968. After 1966 in Kosovo the use of the Albanian language in teaching was increasingly encouraged, and the university used the Albanian language when at least one teaching assistant was Albanian. University of Prishtina (UP), was established as a union of existing higher education institutions and inherited extensive cooperation with the universities of the Yugoslav republics.



Figure 2.28. First Rector of UP Prof. Dervish Rozhaja in his inaugural speech (15/02/1970)



Figure 2.29. Prishtina, (Kosova) March 1981

⁶⁸ Dervish Rozhaja (1934 – 1996) – academician, Albanian professor, biologist, graduated from University of Belgrade (1954), Doctor of Sciences from the same university (1959). Dean of Philosophic Faculty in Prishtina (1968-1969). Rector of University of Prishtina (1970-1973). Vice-Chairman of Academy of Science and Arts in Kosova.

In 1967, a delegation of the faculties of Prishtina paid a visit to the University of Tirana and in 1968 (May 9-11), a delegation of researchers from the State University of Tirana, participated in the Symposium organized in Prishtina, in commemoration of the 500th anniversary of the death of the national hero of the Albanians, Scanderbeg. This is the starting point of the decade-long cooperation of the institutions of the People's Republic of Albania and the Socialist Autonomous Province of Kosovo in the field of education, culture, and sports begin. The cooperation between the State University of Tirana and the University of Prishtina was more intensive and comprehensive compared to other institutions of education, culture, sports, and science.⁶⁹

In October 1970, cooperation and academic staff exchanges were agreed upon between the University of Tirana and the University of Prishtina. An inter-university protocol of cooperation between the two universities was signed for this. Similar protocols were signed every academic year (1970-1980) and provided for the exchange of professors, the admission of students from Kosovo to study at SUT, exchange of experience, exchange of historical documents, etc.

The academic year 1970-1971. The protocol between the State University of Tirana and the University of Prishtina was signed, respectively by the Vice-rector Prof. Osman Kraja and Rector Prof. Dervish Rozhaja, on October 27th, 1970 in Tirana.

"The role of Albania in this period [1970] is very large, therefore the contribution of the Albanian state in raising national awareness [...] is a major contribution to the creation of what is today called the state of Kosovo."

Rexhep Qosja

The academic year 1971-72, The Interuniversity Protocol was signed by Rectors Jorgji Sota and Dervish Rozhaja on December 10th, 1971 in Prishtina.

The academic year 1972-73, The Protocol was signed by Rectors Agim Mero and Prof. Dervish Rozhaja on September 23rd, 1973 in Tirana.

The academic year 1973-74, The Interuniversity Protocol was signed by Rectors Prof. Perikli Prifti and Prof. Idriz Ajeti on January 23rd, 1974 in Prishtina.

⁶⁹ Sahitaj S., "Kosova në sfondin e marrëdhënieve shqiptaro-jugosllave 1974-1989" PhD thesis Tetovo University 2020, page 94.

The academic year 1978-79 The Protocol was signed on October 9th, 1978 in Prishtina by the Rector of UP, Feriz Krasniqi, and Vice-Rector of University of Tirana, Besim Daja

The academic year 1980-81. The Protocol of education and scientific cooperation between the University of Tirana and the University of Prishtina was signed in Prishtina in May 1980, by rectors of respective universities, Petrit Radovicka and Gazmend Zajmi.



Figure 2.30 The first page of the main newspaper of Kosovo "Rilindja"⁷⁰ February 16, 1970



Figure 2.31 Professors of SUT in Prishtina, 1970

In the period 1971 - 1975, students from Kosovo would receive 75 to 100 scholarships each year from the government of Albania. For the academic year 1970-71, the Decision of the Council of Ministers of the People's Republic of Albania, dated June 24, 1970 "On scholarships for students from Kosovo to continue higher studies in Albania", provided for the award of 75 scholarships, of which 10 scholarships for students of engineering (civil construction, mechanical and electrical). This decision of the Council of Ministers also clarified that for students from Kosovo the courses of Marxism-Leninism and the "History of the LPA" were optional; military training would not be developed for them, while all other

⁷⁰ Rilindja (English: Renaissance) was a newspaper in Albanian of Communist Ligue of Socialist Autonomous Province of Kosovo i.e. the Prishtina's main newspaper.

subjects would be developed for these students as well, including internships and productive work. The first inter-university protocol (for the academic year 1970-71) was provided for admission by SUT of 5 researchers from Kosovo, for the preparation of a thesis in search of the scientific degree "candidate of sciences".

Cooperation between two universities would contribute in the first place to the rapid introduction of the Albanian language in university teaching in Prishtina. Especially in the first years after the establishment of the University of Prishtina, teaching in Albanian is the fruit of cooperation with the State University of Tirana. This was made possible by the lectures of professors from the SUT, the supply of university textbooks, and books in the Albanian language in Kosovo (during 1977 alone, over 22,000 technical-scientific books were sent to Kosovo), etc. The results would be obtained very soon: in the academic year 1970-1971, the University of Prishtina had 5,707 Albanian students, while in the academic year 1974-1975 there were 13,945 students, of Albanian nationality.⁷¹

The professors of the University of Tirana started teaching at the University of Prishtina on March 28, 1971. The financial obligations for the professors' trip, according to the protocol, were taken by the sending institution, while the host institution provided them with accommodation, daily expenses, and medical and transportation expenses within the respective state.

Table 2.10 Number of professors from SUT in the University of Prishtina in 1970 – 72

Faculty	Philosophy	Natural Sciences	Technical	Jurisprudence	Medicine	Economy	University in total
Professors	14	14	20	6	9	1	64

In general, this inter-university cooperation enabled that in different branches of the faculties of UP (in the Faculty of Medicine, Technical and Natural Sciences faculties, Academy of Arts, and the branch Mining - Metallurgy in Mitrovica) to develop 23 courses in the Albanian language, for which there was no Albanian academic staff (until then the courses had been developed by Serbian professors in Serbo-Croatian). SUT pedagogues, during an academic year usually hold about 2000 hours of lectures and about 300 hours

⁷¹ S. Sahitaj "Kosova në sfondin e marrëdhënieve shqiptaro-jugosllave 1974-1989" . Ph.D. thesis 2020.

of exercises.⁷² In the Technical Faculty (in Prishtina) and the Faculty of Mining-Metallurgy (in Mitrovica) in the first two years of studies, in the 1970s, teaching was conducted entirely in Albanian. From the People's Republic of Albania in the branch of mechanical engineering (machinery construction) in the period 1971 to 1980, lectures were given by professors:

Adnan Qatipi "*Lifting and transporting Machinery*",
Bashkim Baholli "*Materials in engineering*",
Burhan Jukniu, "*Steam Generators*" and "*Air Conditioning Systems*"
Fehmi Shehi, "*Turboengines – Internal combustion engines*"
Hysen Agolli, "*Turboengines II*"
Ismail Demneri, "*Thermodynamics*" and "*Turbo-machinery*"
Luan Voshtina, "*Thermo-technics*" and "*Cooling systems*"
Marenglen Gjonaj, "*Lifting and transporting Machinery*"
Pëllumb Karauli, "*Mechanisms*"
Ruzhdi Karapici, "*Internal combustion engines*"
Tahir Haxhiymeri, "*Technical Drawing*", "*Materials in engineering*", "*Metallic materials technology*"
Thanas Gaçe, "*Mechanics II*" and "*Vibration's theory*"
Sami Kumi "*Technology of materials in mining*"
Zyhdi Caslli, "*Resistance of materials I, II*"

While in the branch of mining-metallurgy lectures were given by professors:

Astrit Halili "*Metallurgical furnaces*"
Hajredin Kumbaro "*Metallurgy*"
Nexhmedin Lohja, "*Non-ferrous metallurgy*"

The University of Prishtina would be involved in launching protests for autonomy and the equal legal status of Kosova with other Yugoslav republics, in March-April 1981⁷³. This year

⁷² Prof. Sabit Sylja "*Marrëdhëniet arsimore, kulturore dhe shkencore ndërmjet Shqipërisë dhe Kosovës, 1970 – 1980*", Pashtriku 2015.

⁷³ In March and April 1981, a student protest in Prishtina, the capital of the then Socialist Autonomous Province of Kosovo, led to widespread protests by Kosovo Albanians demanding more autonomy and status of a republic within the Socialist Federal Republic of Yugoslavia. The 30,000 Yugoslav police and army troops who violently suppressed the protests left at least 9 dead and many wounded, and 4,200 Albanians, including students, arrested. The SFRY declared a state of emergency in Kosovo and accused the People's Republic of Albania of inciting these protests. One of the students' slogans was "*Kosovo - Republic! Either by peaceful means or by war!*"

the program of exchange and cooperation between the Technical Faculty of UP and the Faculty of Engineering at SUT is terminated. The SUT professors who were in Prishtina at that time were expelled, even though the cooperation protocol for the period 1980-1981 had been signed. The sending of university textbooks from Albania to Kosovo was banned and UP professors and students were forced to use only university textbooks in the Serbo-Croatian language.⁷⁴

All those who had visited Albania or had been part of the cooperation between the two countries became enemies of the Yugoslav state and a target of the so-called "ideological-political differentiation" campaign.⁷⁵

"I am against the suspension of these relations. I do not believe they have indoctrinated us. I was one of the bearers of these relations "

Prof. Ukshin Hoti on the relationship between SUT and UP Meeting of November 19, 1981

UP Meeting of November 19, 1981
Prof. Ukshin Hoti on the relationship between SUT and
one of the bearers of these relations ..

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The central government in Belgrade established a Provincial (State) Commission to investigate the political responsibilities of the Albanian intellectual elite at the University of Prishtina and other institutions such as the Academy and the Albanological Institute of Kosovo, to crack down on intellectual figures such as Dr. Fehmi Agani, Ukshin Hoti, Rexhep Qosja, Ali Hadri⁷⁷ and many

⁷⁴ "Newspaper Rilindja, 9 May 1981, calls for the replacement of school and university textbooks imported from Tirana with Albanian translations of Serbo-Croat texts, and for closer links between the radio and television services of Pristina and Belgrade". F. R., Arhsien and R. A., Howells "Yugoslavia, Albania and the Kosovo Riots" The World Today, Nov. 1981, page 425

⁷⁵ The demagogy of "bratstvo i jedinstvo" ("brotherhood and union") of the Yugoslav Communist League, after March 1981, gave way to "ideopolitical differentiation" which was nothing but reprisals against the Albanians in Kosovo. For example, for enrolment in the first year of studies "proof of moral and political qualities of students" was necessary. Berisha I., "Vdekja e kolonisë"

⁷⁶ Ukshin Hoti (1943 – disappeared on May 26, 1999) was a Kosovar Albanian philosopher and activist. Hoti was a professor of international law and later philosophy at the University of Prishtina and the founder of UNIKOMB, a Kosovo political party. Since 1982 he has been arrested several times by Yugoslav authorities. 2 days after this statement he was arrested by the Yugoslav secret services and was eventually sentenced to 9 years in prison.

⁷⁷ Ali Hadri (1928-1987) – academician, historian. First doctorate at UP. The promoter of the unification of the Albanian language with the motto "one nation – one language".

other prominent personalities of the University⁷⁸.

The Yugoslav communist party and state bodies asked the professors and the management staff of the University of Prishtina to come out with a negative assessment of the cooperation with SUT. In the analysis of the 10-year cooperation with SUT, the academic staff of UP has not come to such conclusions. In the meeting of the Board of Elders⁷⁹ of the University of Prishtina, held in July 1981, there is no negative assessment of this cooperation. The University of Prishtina by the political and state bodies of the former Yugoslavia began to be treated as an institution that produces instability and hostility toward the communist state.⁸⁰

Cooperation between the two Faculties of Mechanical Engineering in Prishtina and Tirana was re-established only after 1999, this time when both parts of the Albanian nation lived in freedom!

⁷⁸ Ademi A., "Demonstratat e vitit 1981 në Kosovë dhe vendimet politike të Beogradit sipas dokumenteve arkivore në Arkivin e Kosovës". Scientific Conference "Demonstrations of 1981", Prishtina, June 2021.

⁷⁹ Managing Board

⁸⁰ Prof. Ibrahim Berisha "Vdekja e kolonisë", Publishing house Artini 2016

2.7 SPLIT OF THE FACULTY IN 1983

IN THE EARLY 1980s, it became necessary to reorganize the Faculty of Engineering. The Scientific Council of the Faculty of Engineering proposed several variants (such as the establishment of a higher polytechnic institute or a polytechnic university, which in addition to the branches of the Faculty of Engineering should include the branch of Industrial Chemistry and the branches of the Faculty of Geology and Mining, or the establishment of a separate technological faculty, which would include branches of metallurgy, industrial chemistry, textiles, and mineral enrichment). Despite the proposals, in 1983 by decision of the Council of Ministers of PSR of Albania.⁸¹, no. 137 dated April 15, 1983, the Faculty of Engineering was divided into two faculties: the Faculty of Civil Engineering and the Faculty of Mechanical and Electrical Engineering. The Dean of the Faculty of Mechanical and Electrical Engineering was appointed Prof. Marenglen Gjonaj.

In the 1980s the profiles of the mechanical engineering branch were:

⁸¹ Since 1976 official name of Albania was the People's Socialist Republic of Albania.

- implants
- machinery
- technology and metal cutting machines

Profiling extended to the fourth and fifth years of study.

In the 1980s, postgraduate specializations were organized with a duration of one year in the following fields:

- Thermal and plastic treatment technology
- Machinery constructions
- Automation of industrial processes
- Thermotechnics and thermal machines
- Siderurgy
- Automation of power processes
- Agricultural machinery constructions

The period 1983-1990 is also the best in the number of dissertation defenses in search of scientific degrees in the faculty (see Chart 3.23).

FMEE CHAIRS IN '1980

The chairs of the Faculty of Mechanical and Electrical Engineering (FMEE) responsible for mechanical, metallurgy, and textile engineering branches at the beginning of the 1980s have been as follows:

Engineering Drawing and Descriptive Geometry

Head of the chair: Dr. Kasem Bokshi

Doc. Esat Heta, Eng. Koço Adami, Eng.Vilhelm Sina, Eng. Qazim Reka, Eng. Fatmir Luga, Eng. Gazmend Lila, Eng.Gazmend Qatipi, Eng.Mikel Shani.

Machinery

Head of the chair: Dr. Savo Gjirja

Doc. Ymer Shurdha, Eng. Ruzhdi Karapici, Eng. Shkëlqim Zeqja, Eng. Andonaq Londo, Eng. Efthimio Duni, Eng. Naim Kuka, Eng. Fadil Ngjelina, Technician: Enver Zela.

Mechanical Constructions

Head of the chair: Doc. Pëllumb Karaulli

Dr. Marenglen Gjonaj, Dr. Rahmi Korbi, Dr. Hasan Pema, Doc. Fatmir Pejani, Eng. Sadik Vokshi, Eng. Mahmut Shushku, Eng. Mimoza Cukalla (Dhrami). Technician: E'them Zajmi.

Metallurgy

Head of the chair: ing. Nexhmedin Lohja

Dr. Vladimir Nika, Eng. Kristaq Kuneshka, Eng. Sajmir Lopçi, Dr. Dervish Elezi, Eng. Fatos Pani, Eng. Astrit Halili, Eng. Fiqiri Hodaj. Technician: Petrit Çangu.

Metal's Technology

Head of the chair: Dr. Bashkim Baholli

Doc. Ali Progri, Doc. Aleksandër Bushati, Dr. Gëzim Demiraj, Dr. Tanush Hajna, Dr. Adnan Bodinaku, Eng. Sami Kumi, Eng. Përparim Deçolli, Eng. Adriana Kumbaro, Eng. Emil Lamani, Eng. Jorgaq Kaçani, Technicians: Shpëtim Buzo

Textile Engineering

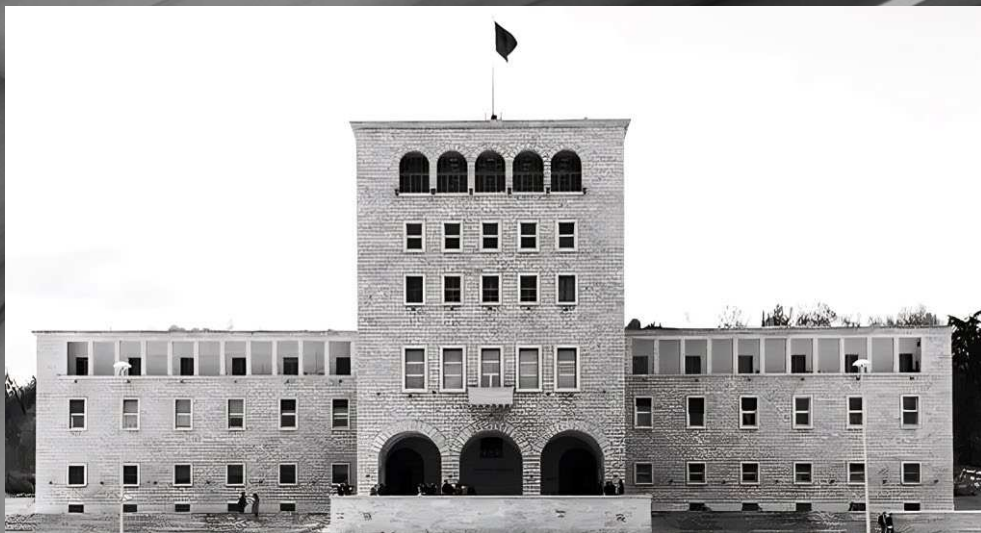
Head of the chair: ing. Kozma Xhero

Eng. ShEGA Shaplo, Eng. Eva Budina, Eng. Vangjel Haxhistasa, Eng. Artan Sinoimeri, Eng. Arjan Greva. Technicians: Liljana Beçi. Arjan Xhero.

Thermo-technics

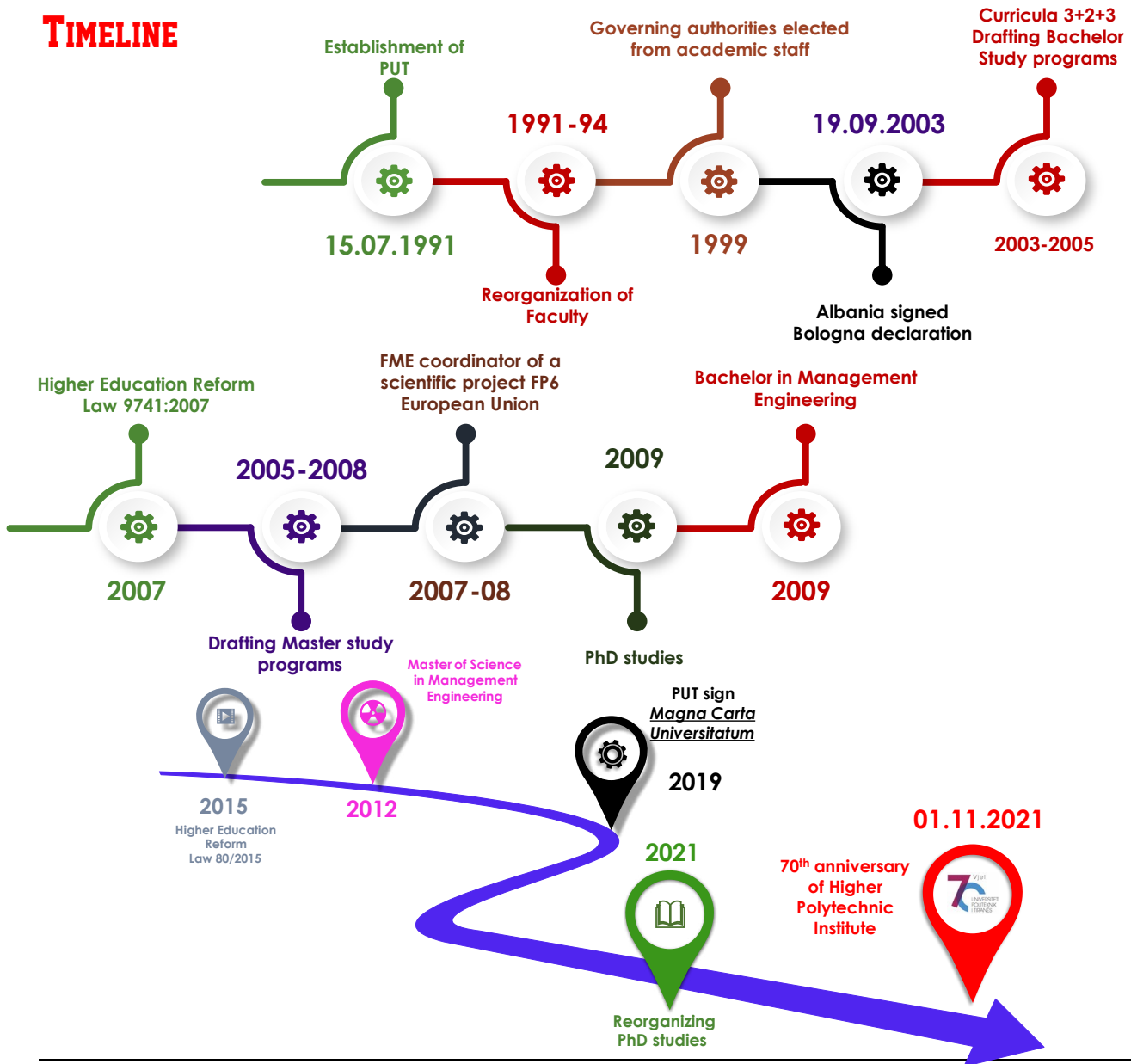
Head of the chair: Doc. Burhan Jukniu

Dr. Hysen Agolli, Dr. Ismail Demneri, Dr. Alfred Pema, Eng. Angjelin Shtjefni, Eng. Nikolin Pema, Eng. Artan Kodra, Eng. Gjergji Xexo, Eng. Flamur Bidaj. Technicians: Ernest Dylgjeri



3RD PERIOD
1991 - 2021

TIMELINE





3.1 SPLIT OF THE UNIVERSITY OF TIRANA AND ESTABLISHMENT OF PUT

In February 1991 the students demanded the removal of the name "Enver Hoxha" of the University of Tirana. The organized protests of students and professors at the University of Tirana ended with a hunger strike, which lasted 48 hours, and eventually, the Albanian government¹ removed the name, closed the university for "security" reasons (classes were shortened), and at the end of the academic year in July 1991, divided the University into two parts. Until 1991 at the University of Tirana, there were 3 faculties of engineering: Mechanical-Electrical Engineering, Geology-Mining and Civil Engineering. By Decision No.

¹ On February 21, 1991, Council of Ministries was dismissed by President of Republic Ramiz Alia and on February 22, a new government was formed (February-May 1991) headed by Mr. Fatos Nano. The decision to divide the university was taken by the government of Stability (June – December 1991) whose Prime Minister was Mr. Y. Buqi.

215 dated July 15, 1991, of the Council of Ministers was established Polytechnic University of Tirana (PUT) with 4 faculties:

1. Mechanical Engineering
2. Electrical Engineering
3. Geology and Mining
4. Civil Construction

Today, PUT has 7 Faculties (in 2005 was established Faculty of Mathematical Engineering and Physics Engineering, in 2007 Faculty of Information Technology, whereas in 2013 Faculty of Civil Construction was split and was established Faculty of Architecture and Urban Planning) and 1 Research Institute (Institute of Geosciences).



Figure 3.1 Decision No. 76, dated 20.02.1991 "On the removal of the name" Enver Hoxha "of UT"

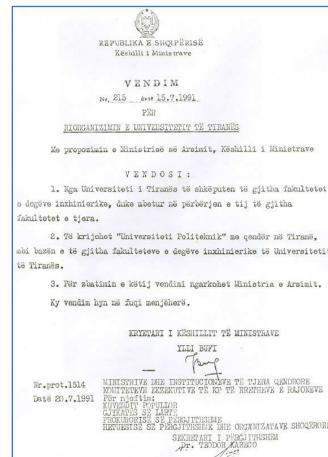
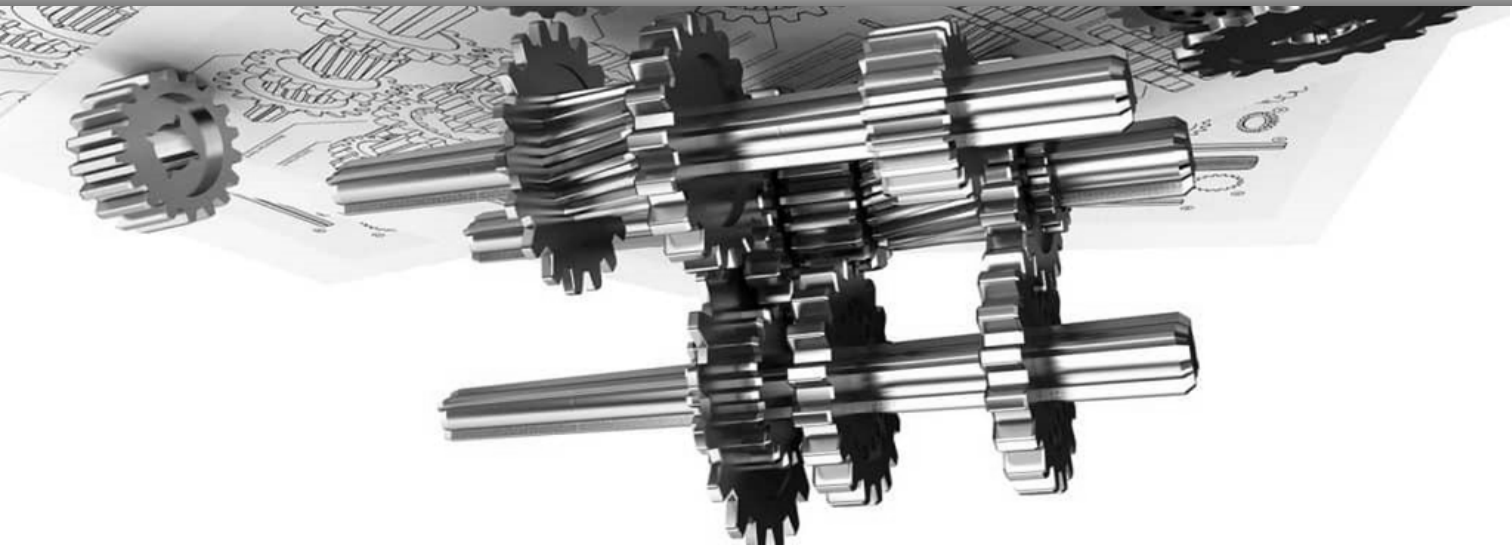


Figure 3.2 Decision No. 215, dated 15.07.1991 "On the reorganization of UT"

The Faculty of Mechanical Engineering in 1991 had 8 chairs: Engineering drawing, Descriptive Geometry, Machinery, Mechanical Constructions, Metallurgy, Technology, Thermo-technics, and Textile. Rector of the Polytechnic University of Tirana, in 1991 was appointed Prof. Dr. Gëzim Karapici².

² Graduated from SUT in electrical engineering in 1967. PhD studies in Politecnico di Milano (Italy) 1979-1982. From 1971 Lecturer at the Faculty of Engineering. Head of the Chair of Automation 1985-1991. Dean of the Faculty of Mechanical and Electrical Engineering 1989-1991. Rector of PUT 1991-1995. Dean of the Faculty of Electrical Engineering 2003-2005



3.2 REORGANIZATION OF THE MECHANICAL ENGINEERING DURING THE 1990s

The higher education system in Albania during the communist regime was similar to other countries of Central and Eastern Europe. Compared to the higher education system in Western Europe, the higher education system in Albania had these characteristics:

- academic programs were long and highly specialized (lack of short-cycle non-academic programs).
- theoretical and applied sciences were given priority.
- the emphasis was placed on theory rather than on *know-how*.
- priority had "*learning-by heart*", rather than practical application.

- even though theoretical and applied sciences were prioritised, laboratories often lacked necessary equipment³

In consequence, in the early 1990s, the Faculty of Mechanical Engineering (FME) began the process of reorganization according to the models of the European universities, mainly the Polytechnic Universities of Bari and Turin (Italy). The reorganization process was focused in:

1. review of curricula,
2. changing the organizational structure of the faculty.

Curricula were stripped of ideological subjects and those related to military training. Curricula structures were revised, mainly according to the Italian polytechnic universities' models. This process continued until 1994. Even formally the university was still far from the way European universities functioned and a new legislative reform for higher education was needed.

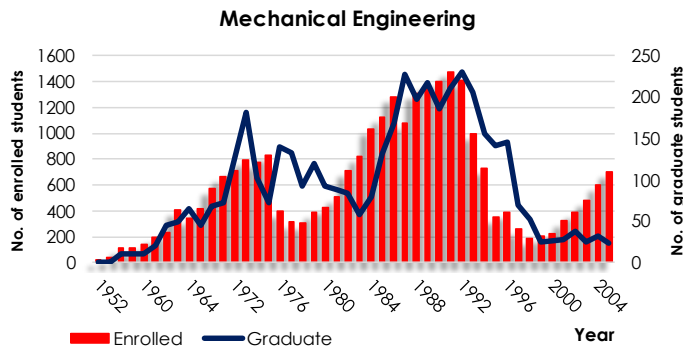


Chart 3.1 Graduate and enrolled students in Mechanical Engineering (5-year program)

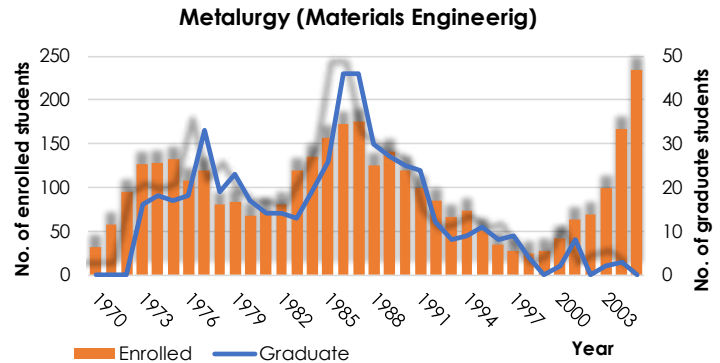


Chart 3.2 Graduate and enrolled students in Metallurgy (5-year program)

FME in 1994 was organized based on departments, which in contrast to the chairs were set up not only to cover one or several related disciplines but also to cover certain curricula

³ McCabe R., Ruffio P., Heinämäki P., "Tempus@20 A retrospective of the Tempus programme over the past twenty years, 1990-2010" ISBN 978-92-9201-163-5 Belgium, 2011, p. 8.

(the same structure continues today with the difference that the Department of Metallurgy is included as the teaching group of materials in the Department of Production - Management).

Energy Department was established by the merger of the chair of Thermo-technics and a part of the chair of Machines. The Head of the Department was appointed **Dr. Artan Kodra**.

Department of Mechanics was established by the merger of the chair Mechanical Construction and a part of the chairs of Machinery and Engineering Drawing. The Head of the Department was appointed **Dr. Arben Dushi**.

Department of Metallurgy was founded based on the chair of Metallurgy. The Head of the Department was appointed **Prof. Dervish Elezi**.

Department of Production and Management was established by the merger of 3 chairs: Descriptive Geometry, Technology, and Engineering Drawing. The Head of the Department was appointed **Prof. Gezim Demiraj**.

Department of Textile was founded based on the chair of Textile. The Head of the Department was appointed **Dr. Albana Petrela**.

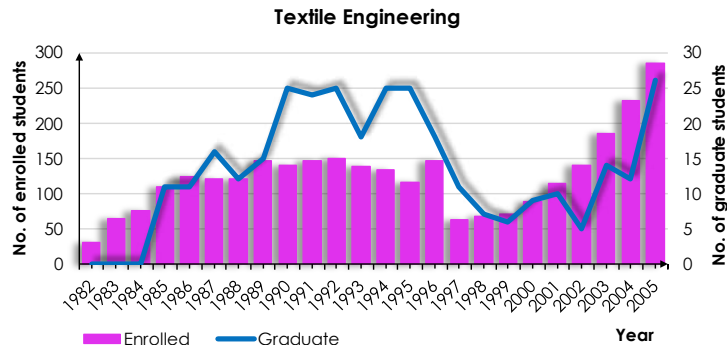


Chart 3.3 Graduate and enrolled students in Textile Engineering (5-year program)

The position of financial and administrative manager was introduced into the structure of the Faculty. The Chancellor (today the administrator) of the faculty has the responsibility of administration of financial and material resources and supervising their distribution and implementation.



3.3 LABOUR MARKET DYNAMICS IN ALBANIA

It should be noted that the dramatic change in the labour market in Albania, after the change of the political system in the early 1990s, had greatly impacted the transformation of study programs in FME. The main characteristics of this change in the structure of the economy in Albania were:

- domination of the market economy.
- natural shift of the industry structure.
- open competition of technologies, products, and services, especially vis-à-vis with the neighbouring countries.

All these changes had to be reflected in the profile of the future graduates of Faculty of Mechanical Engineering, for them to be successful in the new free market economy. A

revolutionary change took place in the study programs of the mechanical engineering profile: production technology, of the metallurgical engineering, and to some extent study program of the textile engineering.

The growth rate of the number of enterprises in the field of industry (non-food processing) in Albania after 2000 is high. Compared to 2002, in 2020 there were 2.5 times more industrial enterprises. In the period 2006-2013, 8% of newly created enterprises belong to the sector of industry, this figure is about 2 - 2.5 times higher than that of new enterprises created in the same period in the sector of construction.

Table 3.1 Enterprises in the industry sector in Albania (2013-2020)

Year	2013	2014	2015	2016	2017	2018	2019	2020
Existing	10.333	10.154	11.810	11.302	11.066	10.215	9.630	9.571
New	1.017	1.153	2.523	1.208	1.170	842	640	774

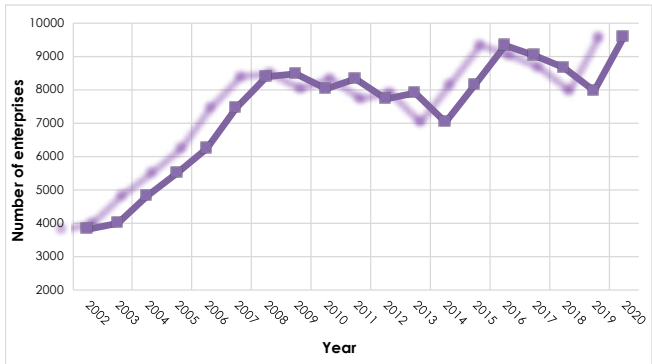


Chart 3.4 No of companies in the manufacturing sector 2002-2020 (Source INSTAT)

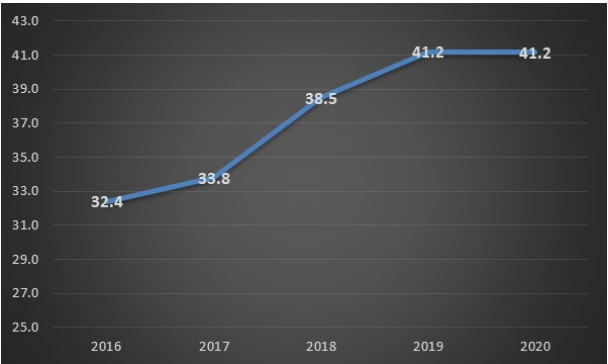


Chart 3.5 Ratio (in %) of employment of young people (Source INSTAT)

During the last 20 years, Albanian manufacturing companies have improved their processes as they have transitioned from manufacturers with ordered materials to genuine manufacturers. Furthermore, there is a greater number of factories able to offer finalized products. Positive trend of the increasing the number of enterprises in the processing industry in Albania (Chart 3.4) has a direct impact on employment, as shown in Chart 3.5.

Recently, there is a growing interest of foreign capital in the automotive sector. Foreign companies of automotive industry have already invested in the manufacturing sector in Albania, especially in plastics and wiring manufacturing⁴, some of them are:

- *PSZ Albania GmbH* was founded in 2012. The company is part of German Group PSZ Electronic GmbH⁵. It specializes in cable assembly, leading elements, and electronic and electromechanical components for heating systems. The production facility in Tirana, Albania has around 250 employees.
- *Forschner Albania*, part of Eugen Forschner GmbH a company that specializes in cabling systems, SCR systems, precision turned parts, and electromechanical systems. There are two plants in Albania in Durres and Tirana (established in 2018 and 2015 respectively) with around 750 employees.



Figure 3.3 Forschner (2018)



Figure 3.4 Plant of German PSZ Albania GmbH, Vorë, 2012

- French automotive supplier *Delmon Group* inaugurated its production plant, a \$1.7 million investment, in Elbasan in 2018. In the first year, the production reached a \$1.12

⁴ Manufacture Sector Factsheet 2020, edition of AIDA (Albanian Investment Development Agency).

⁵ PSZ electronic founded in 2003. PSZ electronic has more the 1300 employees in Germany, Czech Republic Tunisia and Albania, manufacture cable assemblies, complex cable harness etc.

million turnover. The unit manufactures rubber parts for the automotive business, including exhaust hangers, stabilizer bar bushing, seals, and dumpers.

- Italian Giobert s.a.⁶, has established its newest factory in Albania, with 60 employees. The factory is producing internal components for the automotive industry.
- South Korea's Yura Corporation⁷ opened its production unit in Fier, in 2020. Yura has invested around \$9.0 million in the new plant in Albania and hired over 540 people
- "Sews Cabind Albania" part of Sumimoto Electric Industries (Japan)⁸ operated since August 2019 near Tirana. The company is producing wire harnesses for the European automotive market, employing 2000 people.

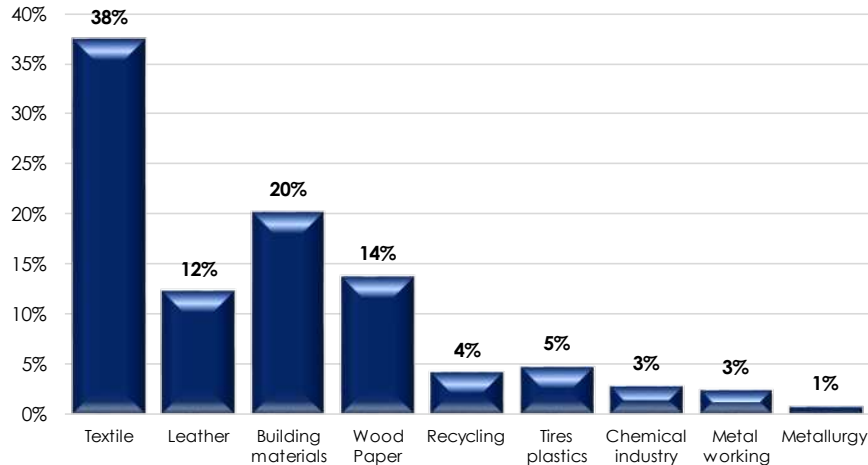


Chart 3.6 Number of enterprises (percent to the total) in the manufacturing sector 2017 (Source: QKR)

⁶ Giobert s.a is an international group with five plants: two in Italy, one in Poland, one in Brazil and newest in Albania, employing an amount of 350 people. Giobert s.a supplies to the automotive industry keys, lock cylinders and interior components for more than 60 years

⁷ Yura Corporation specializes in designing, developing, and manufacturing automotive electronics including wiring harness and ICUs. The company was established in 1993.

⁸ Sumitomo Electric Industries, Ltd. is a manufacturer of electric wire and optical fiber cables. Its headquarters are in Osaka, Japan. The company was founded in 1897 to produce copper wire for electrical uses. Sumitomo Electric operates in five business fields: Automotive, Information & Communications, Electronics, Environment & Energy,

Albanian Government had approved specific incentives for foreign investments (including the automotive industry) that define a corporate income tax rate of 5% instead of 15 %. The fiscal incentives for the automotive industry aim not only at increasing Albania's competitiveness in the region but also at attracting more investments in this sector.⁹

The structure of the non-food processing industry in Albania is presented in Chart 3.6. As shown in Chart 3.6, in 2017 the metalworking industry occupied about 4.4% (58 enterprises), metallurgy about 1.5% (20 enterprises), and the textile industry about 12.6% (168 enterprises) of the total number of non-food industrial enterprises (total 810 enterprises). Today there are over 60 mechanical enterprises. But if we also consider the small enterprises, which employ 2-5 employees, who produce mainly metal structures and duralumin works, the total number of enterprises in the mechanical industry goes to about 700. The distribution of this industry is mainly in the region of Tirana, Durrës, Fier, and Elbasan. The growing trend of the number of industrial enterprises is a positive indicator, not only for the study programs covered by FME but also for the possibility of employing graduate engineers in enterprises, in Albania.

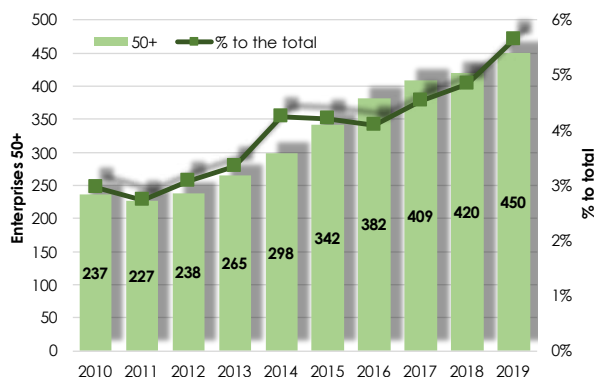


Chart 3.7 Enterprises in the manufacturing industry with over 50 employees (Source: INSTAT)

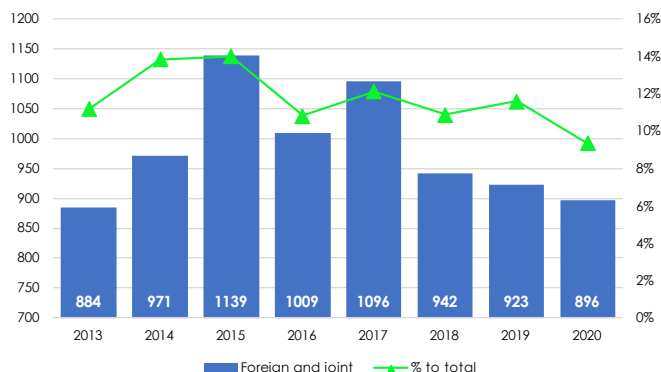


Chart 3.8 Foreign and joint (Albanian + foreign) active enterprises in the manufacturing industry (Source: INSTAT)

⁹ <https://invest-in-albania.org/albania-to-jump-start-automotive-industry-with-tax-incentives/>

In terms of size, companies belonging to the industry sector have interesting figures. Despite the large number of micro-enterprises with 1-4 employees (about 83%), the industry sector has more large enterprises compared to other sectors of the economy. (450 out of a total of 1979). Without a doubt, the huge number of small and medium enterprises (SME) suggests to the enterprise a manager multitasking, and to the university offering an interdisciplinary education (for example in engineering and economics).



3.4 BOLOGNA PROCESS

Albania's entry into the Bologna process in 2003¹⁰ led to a structural reform at all levels of higher education. Faculty of Mechanical Engineering restructured every study program (curricula) according to the 3 + 2 + 3 system (during the 2003-2005 period were implemented bachelor programs). In 2005, Bachelor programs in mechanical engineering, textile engineering and fashion, and materials engineering with 180 ECTS¹¹, for the first time were evaluated by the Quality Assurance Agency (established by Decision of the Council of Ministers No. 303, dated July 1, 1999, "On the establishment of the Accreditation System in Higher Education").

¹⁰ Law 8461 dated 25.02.1999 "On Higher Education in the Republic of Albania" was amended in June 2003, to enable the acceptance by the European Union of the repeated request of Albania for the signing of the Bologna Declaration. Albania signed the Bologna Declaration in 2003 and was accepted as part of this process on 19.09.2003. PUT meanwhile had started implementing the 3 + 2 system, in a pilot program (mechatronics).

¹¹ ECTS – European Credit Transfer System.

The academic year 2005-2006 was the first year of implementation of the restructured curricula in accordance with Bologna standards. Bologna Declaration¹² requirements include:

- independence and autonomy of universities (election of university governing authorities by academic staff and students and financial autonomy);
- implementation of the 3 + 2 system;
- implementation of the ECTS credit system, etc.

*Phare*¹³ programs, and later *Tempus* IV¹⁴ funded by the European Union for former communist Eastern European universities, were a great help in revising and modifying curricula, improving teaching techniques, and benefiting from contemporary literature.

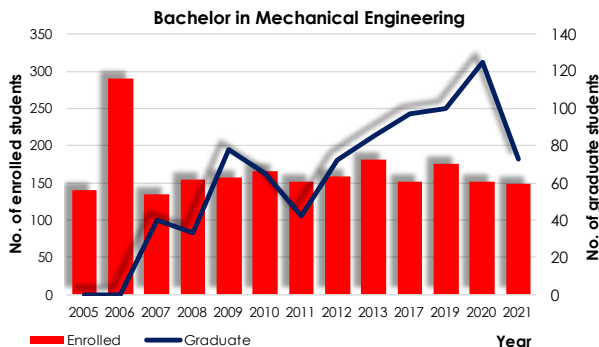


Chart. 3.9 Bachelor in Mechanical Engineering

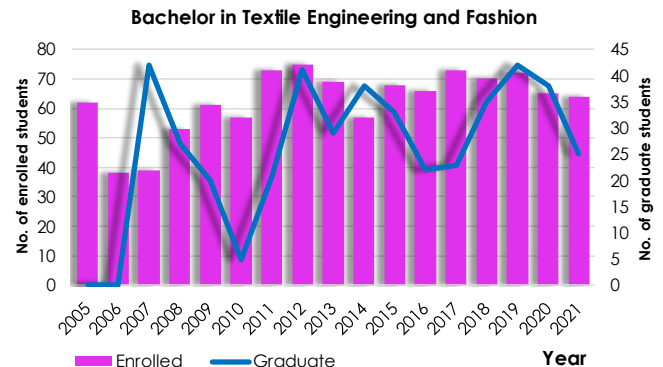


Chart. 3.10 Bachelor in Textile Engineering and Fashion

¹² The Bologna Declaration (Italy) was signed on 19 June 1999 by the Ministers of Education of the European Union, to serve as a guiding document in the Bologna process, for the creation of the European Higher Education Area.

¹³ "PHARE" – French lighthouse. *Poland and Hungary Assistance for the Restructuring of the Economy* – a program for the economic support of the Polish and Hungarian democracies and then the main financial instrument of the European Union for the accession of the countries of Central and Eastern Europe.

¹⁴ *Tempus* – lat., time. *Trans European Mobility Programme for University Studies* (1990-2010). This program from 01.01.2014 was replaced by Erasmus +.

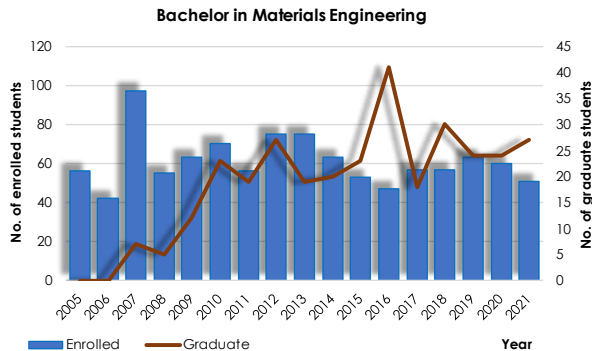


Chart 3.11 Bachelor in Materials Engineering

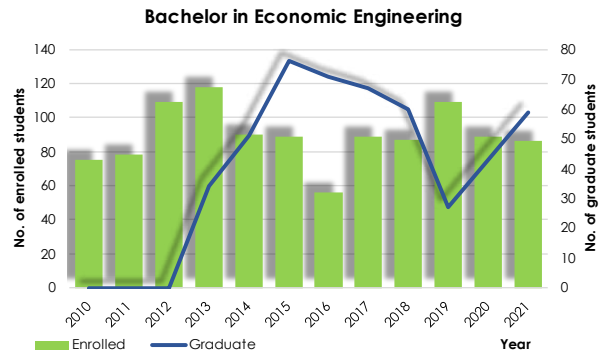


Chart 3.12 Bachelor in Economic Engineering

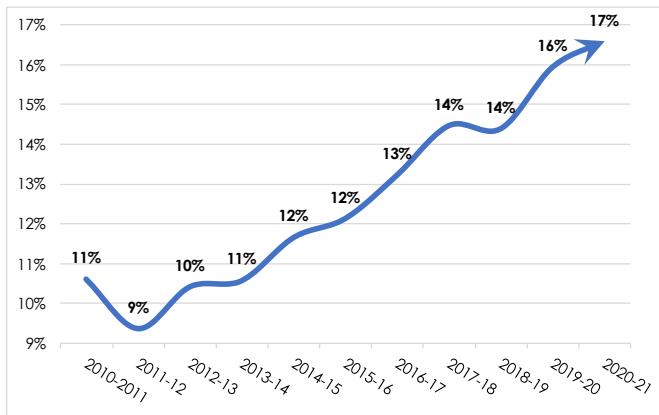


Chart. 3.13 No of students in engineering to the total in Albania.
(Source: INSTAT)



Figure 3.5 Order "Honour of Nation"¹⁵ awarded to the PUT (2012)

The restructuring of the curricula continued with the preparation of the Master's programs with 120 ECTS and 90 ECTS and was carried out during the years 2006-2008. In accordance with Law no. 9741, dated May 21, 2007, "On Higher Education in the Republic of Albania" were also restructured PhD studies at Faculty of Mechanical Engineering.

¹⁵ The decoration Order "Honour of Nation" is the highest decoration to be given in Albania, among the Civil awards and decorations of Albania.

In 2009, the Faculty of Mechanical Engineering completed the implementation of curricula restructuring according to the 3 + 2 + 3 system (BSc, MSc / MP, Ph.D.). This change of curricula brought as innovations:

- organization of study programs after a labor market analysis according to the programs and profiles offered.
- introduction of the easily readable credit system (ECTS¹⁶) and diploma supplement
- re-inclusion of internships.
- introduction of elective courses by students.
- possibility of interdisciplinary training through credit transfer.

The curriculum of the second cycle of study Scientific Master in Mechanical Engineering has 3 profiles (similar to the profiles in the former 5-year system):

- *Energy*
- *Mechanical and vehicles*
- *Production and Management*

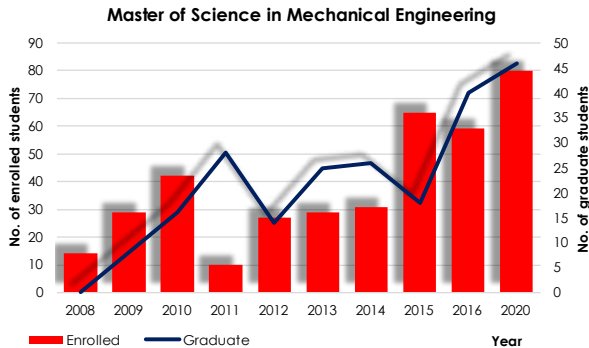


Chart 3.14 Students in Master of Science in Mechanical Engineering

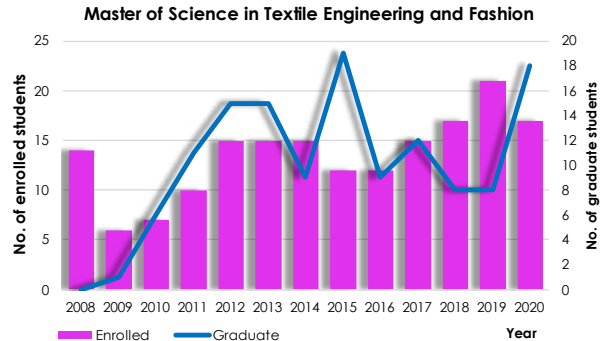


Chart 3.15 Students in Master of Science in Textile Engineering and Fashion

¹⁶ ECTS – European Credit Transfer and Accumulation System – is a standard means for comparing academic credits, i.e., the "volume of learning based on the defined learning outcomes and their associated workload" for higher education across the European Union and other collaborating European countries.

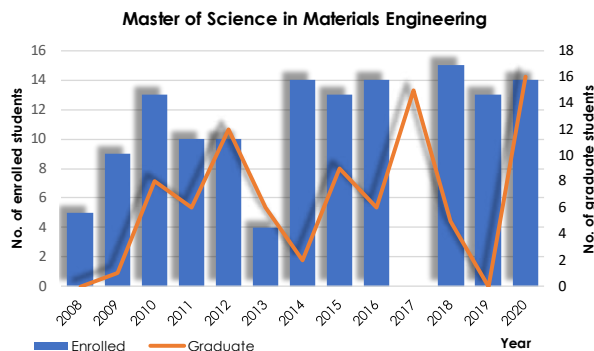


Chart 3.16 Students in Master of Science in Materials Engineering

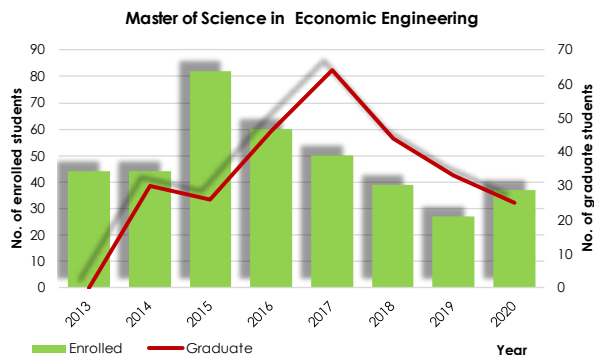


Chart 3.17 Students in Master of Science in Economic Engineering

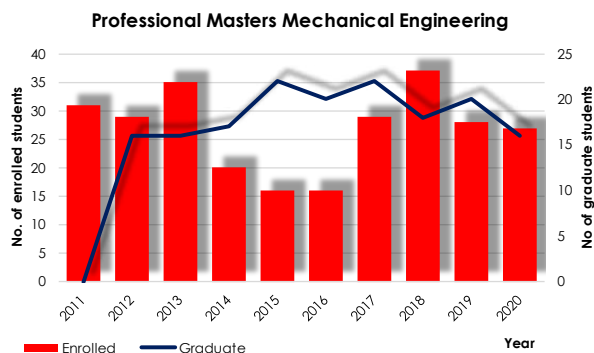


Chart 3.18 Students in Professional Master in Mechanical Engineering

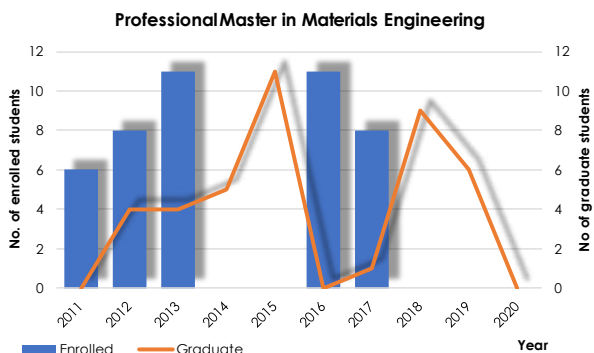


Chart 3.19 Students in Professional Master in Materials Engineering

FME responded to the labour market structure by opening and organizing a new study program in 2008, the Bachelor in Economic Engineering. Economic (Industrial) engineering is an interdisciplinary course that consists of engineering and economics parts. It combines technical and scientific as well as economic and legal content. Curricula at both levels (Bachelor and Master) of economic engineering introduced for the first time respectively in 2008 and 2011 with the direct initiative of the Dean of FIM, Prof. Andonaq Londo, were a relatively quick response of FME to the Albanian labor market and one of the rare cases in

PUT of creating an interdisciplinary curriculum, which gives graduates the flexibility to adapt to the labor market. The curricula of the Faculty of Mechanical Engineering are subject to periodic evaluation visits by the national quality assurance agency in higher education, or whenever there are significant changes to the curriculum or accreditation criteria.



Chart 3.20 Students in Professional Master in Textile Engineering and Fashion

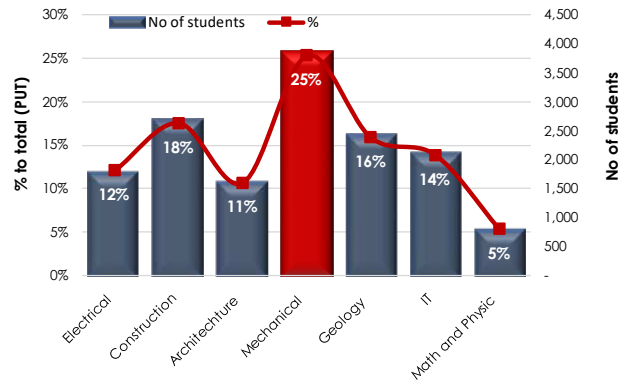


Chart 3.21 Number of students at PUT by Faculties in the academic year 2021-22 (Source *INSTAT*)

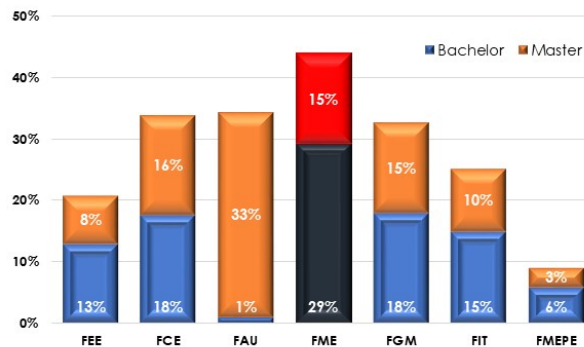


Chart 3.22 Number of students at PUT by Faculties, (Source: *INSTAT*)

The number of students in the academic year 2021 – 2022 at PUT was 14,361. Chart 3.22 shows the percentage of students enrolled in each faculty to the total number of students at PUT in 2021 (FME has 25% of the total).



3.5 RESEARCH

Scientific research in the Faculty of Mechanical Engineering, despite a chaotic period in the early 1990s, has increasingly focused on issues of national interest and/or European priorities in research projects. Involvement in research projects with partner universities, doctoral students at European universities, co-supervised doctorates are increasingly putting research at FME on the right track.

PHD Studies

The reorganization of doctoral studies at FME as a postgraduate school plus doctoral dissertation in the '1990s was done in accordance with Law no. 7810, dated January 4, 1994, "On higher education in the Republic of Albania" and then with Law no. 8461, dated February 25, 1999, "On higher education in the Republic of Albania". In the FME in the period 1995-2005 there were these postgraduate schools (PGS)

- Thermo-energy and thermo-fluid machines,

- Mechanical technology
- Mechanical constructions

PGS was completed in 9 months to 2 years, while doctoral research work 3 years.

In the academic year 2008-2009, the doctoral studies at FME were reorganized in accordance with Law no. 9741, dated May 21, 2007, "On higher education in the Republic of Albania". Doctoral studies were organized at the faculty level and were managed by the Faculty Council of Professors (which was a body that included all Professors from the academic staff). The Doctoral School (or Second Level Master) contained theoretical training with 60 ECTS in line with the research topics of Ph.D. students. The FME's Doctoral School had 2 profiles:

- Mechanical engineering
- Materials Engineering

Table 3.2 Council of Professors of FME 2021

1	Prof. Ermira Shehi	Chairwoman
2	Prof. Odhisea Koça	Member
3	Prof. Vladimir Kasemi	Member
4	Asoc. Prof. Majlinda Alcani	Member
5	Asoc. Prof. Altin Dorri	Member

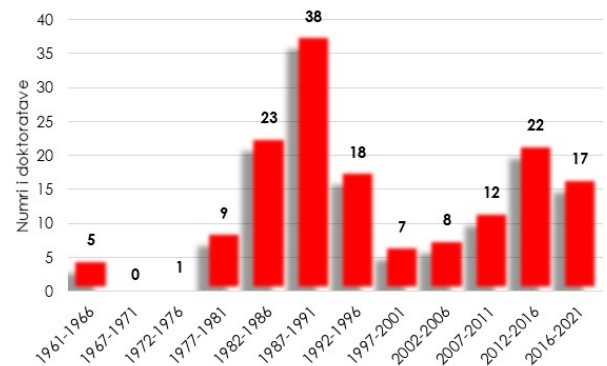


Chart 3.23 No. PhD thesis in FME over the years

Recently, doctoral studies at FME have been reorganized in accordance with law no. 80/2015 "On higher education and scientific research in institutions of higher education in the Republic of Albania" in 2021. Innovations in this latest reorganization are:

- Areas and subfields of research defined according to international standards¹⁷;

¹⁷ ISCED – International Standard Classification of Education. Fields of education and training 2013 (ISCED-F 2013)

- Opening doctoral studies in the fields and subfields covered by FME based on a research and development project.
- Requirements for research ethics.

Ph.D. studies at FME are jointly organized by the 4 basic units (departments) of the faculty. The progress is monitored by the Standing Committee for the award of the scientific degree "Doctor" (FME Council of Professors) (Table 3.2).

Today, research fields of FME, according to the international standard ISCED, in the section "07 Engineering, Manufacturing and Construction"; are:

- 071 Engineering and Machine construction
- 072 Production and processing technology
- 078 Interdisciplinary program and qualification involving Engineering, Manufacturing, and Construction

The subfields are:

- 0713 Electricity and Energy
- 0715 Mechanics and metal processing
- 0716 Land, sea, and air vehicles,
- 0722 Materials¹⁸ (glass, paper, plastics, and wood)
- 0723 Textiles (clothing, footwear, and leather)
- 0781 Interdisciplinary program and qualification involving Engineering, Manufacturing, and Construction.

International Scientific Conferences

The Faculty organizes 2 international conferences: the International Textile Conference (ITC) and the International Conference on Engineering and Entrepreneurship (ICEE). These conferences are held once every two years. The 1st ITC Conference was held in 2004, while the 1st ICEE Conference was in 2017.

¹⁸ Metallic materials are included in subfield 0715.

In 2021 the joint conference (9th ITC & 3^d ICEE) was held as a hybrid activity (with virtual and live presentations). Over 40% of presentations were from professors at foreign universities: TTK University of Applied Sciences, Estonia, University of Ljubljana, Slovenia, University of West Attica, Greece, CITEVE – Centro Tecnológico das Indústrias Têxtil e de Vestuário de Portugal, University of Tetovo, Tetovo, Republic of North Macedonia, University of eastern Macedonia, Greece, Eskisehir Technical University, Eskisehir, Turkey; Academy of Sciences and Arts of Bosnia, Bosnia and Herzegovina, University of Bihać, 77000 Bihać, Bosnia and Herzegovina Gheorghe Asachi" Technical University of Iasi, Rumania;; Kyiv National University of Technologies & Design, Ukraine; University "Ss. Cyril and Methodius"- Skopje, North Macedonia, University "Goce Delcev"- Stip, North Macedonia, University of Sultan Ageng Tirtayasa, Indonesia; University of Corsica Pasquale Paoli, France; Université de Poitiers, France.

Research and development projects

FRAMEWORK PROGRAMME / HORIZON 2020

FP6 *"Reinforcement of human and material capacities of the Textile Technology Research Centre in Albania"* RETEXRESALB

Budget: € 299 970

Period: 2007-2008

Coordinator: UPT, FIM (Prof. Genti Guxho)

FP7 *"Knowledge transfer and research needs for preparing mitigation/adaptation policy portfolios"* Promitheas-4.

Budget: € 1 060 984,50

Period: 2011-2013

Coordinator: Ethniko kai Kapodistriako Panepistimio Athinon (Greqi),

Partner UPT, FIM (Prof. Andonaq Londo)

FP7 *"Transport EU-Western Balkan Network for Training, Support and Promotion of Cooperation in FP7 research activities"* TRANSBONUS

Budget: € 495 328

Period: 2009-2010

Coordinator: Applied research and communications fund (Bulgaria),

Partner UPT, FIM (Prof. Andonaq Londo)

FP7 *"Global Solar Water Heating Market Transformation and Strengthening Initiative"*

Budget: € 495 328

Period: 2017

Coordinator: Applied research and communications fund (Bulgaria),

Partner UPT, FIM (Prof. Asoc. Altin Dorri)

FP7 *"Demonstration of a Condition Monitoring System for Tidal Stream Generators"* TidalSense,

Period: 2012-2014

Partner UPT, FIM

TEMPUS PROJECTS (PHARE, CARDS, Interreg)

"Engineering curricula development in computer integrated manufacturing technologies and robotics"

Budget: € 737,500

Founded by: European Commission

Period: 1994-1996

Coordinator: Politecnico di Bari (Itali),

Partner : UPT, FIM

"Création du Département Transports - Université Polytechnique de Tirana"

Budget: 450,100 Euro

Founded by: European Commission

Period: 1996-1998

Partner: UPT, FIM

Nr: Structural JEP 11558-1996

"Development of engineering curriculum and /or improvement in energy field"

Budget: 388,461 Euro

Founded by: European Commission

Period: 1997-2001

Nr.: SJEP 12076-97

"Strengthening of Academic-Industrial Links in Engineering Materials and Manufacturing"

Budget: 165,220 Euro

Founded by: European Commission

Period: 1997-2001

Nr.: Univ. Mgt. JEP 14384-1999

"Improvement of structure infrastructure of practical and long-life learning in FME at PUT"

Founded by: European Commission

Period: 1999-2001

Nr.: UM_JEP – 14384-1999"

"Curricula Development in Mechanical Engineering according to Bologna Declaration, towards a two-tier structure (undergraduate and post graduate studies)"

Budget: 238,560 Euro

Founded by: European Commission

Period: 2004-2007

Nr.: 18062-2003

"The New knowledge in support to transport policy in Albania"

Founded by: European Commission

Period: 2005-2007

Nr.: IB_JEP-19089-2004

"Collaboration for improvement of management of transport request"

Founded by: European Commission

Period: 2007-2009

No. 143055

"Renewable Energy Studies in Western Balkan Countries" RESI

Founded by: European Commission

project number 544504-TEMPUS-1-2013-1-DE-TEMPUS-JPCR.

Budget: € 1 029 044,47

Period: 2013-2016

Partner UPT, FIM (Prof. Andonaq Londo)

Project SEA-EAS *"Economical and Environmental Development"*

Founded by: Iniziativa Comunitaria NPPA-INTERREG-CARDS-PHARE.

Coordinator: Università Degli Studi del Molise, Campobasso - Italy

Period: 2008

Partner UPT, FIM

"New neighbourhood programme Italy-Albania"

Interreg /Cards 2004-2006

MO.S.T. – Mobility Sustainable in Tirana.

ERASMUS + PROJECTS

FME has a series of Erasmus+ projects with over 20 European Union universities for academic staff and students exchange from 2016

OTHER INTERNATIONAL PROJECTS

"Economic, social and environmental impact and technological alternatives of energy generation in Albania" 2009

Founded by: ENEL

Period: 2009

"Norway Macedonia Albania Kosovo" Sustainable Energy Development at Academia – "NORMAK Sustainable Energy" NORMAK:

HERD Energy Program (2016).

Coordinator: Norwegian Ministry of Foreign Affairs

Partner UPT, FIM (Prof. Asoc. Altin Dorri)

"E-Learning Innovation and Sustainable Albanian Agriculture" ELISAA,

Founded by: European programme EACEA (Education, Audio visual and Culture Executive Agency)- Tempus

Budget: € 34.000

Period: 2015-2016

Partner UPT, FIM (Prof. Andonaq Londo)

"Ristrukturimi Akademik i Evropës Jug-Lindore"

Projekti i Rrjeti Shkenca dhe Teknologjia e Materialeve

Founded by: DAAD.

Period: 2013

Partner: UPT, FIM (Prof. Dervish Elezi)

"Environmental policy in Transborder Corridors Ports within Ecoport8"

Budget: € 2.185.100,00

Founded by: Southeast Europe Transnational Cooperation Programme

Period: 2009-12

"Creativity Innovation and IPR in Textile and Clothing Industry in the Euro-Mediterranean Area"

Founded by: TALEX European Commission

Partner: UPT, FIM (Prof. Genti Guxho)

"Southeast European centre for entrepreneurial learning"

Founded by: Southeast Europe Transnational Cooperation Programme

Partner: UPT, FIM (Prof. Genti Guxho)

"Study on energy valuation of public buildings with the aim of increasing energy efficiency in them"

Case studies in Albania and Kosovo.

Budget: € 6000

Founded by: AKKSH

Partner: UPT, FIM (Prof. A. Londo)

NATIONAL R&D PROJECTS

"Study of the technological potential of wool fibres from the native breed"

Year: 2006-2008

"Creation of a database for natural polymer textile materials produced in Albania through the use of testing methods in accordance with international standards" (2007-2009)

"Conception and establishment of pole software in the Department of Energy, with the objective of establishing a national center for the promotion of new technologies in the field of energy" (2009 - 2010)

"Determining the finesses of textile fibres for the textile industry in Albania with alternative methods" (2009-2010)

"Digitalization of clothing design"

Year: 2006

"Increasing the reliability of engineering solutions through the implementation of new automated methods"

Year: 2005

"Study on the assessment of the natural potential of solar energy and its use in the building in order to improve the energy performance of the building. Case study: Uses of solar energy for "sanitary" water with different types of plants in the Tirana-Durres area "

Year: 2010

"Drafting an Action Plan on the Relationship between Greenhouse Gas Emissions (GHG), Energy Efficiency (EE) and their impact on the post-pandemic situation COVID 19. Recommendations on policies and measures to be taken by the Albanian government to achieve the objectives of year 2030."

Coordinator: UPT, FIM (Prof. A. Londo)

Funded by: AKKSH

Budget: € 16,400

Period: 2021-2022

"Study on Energy Valuation of Public Buildings with the aim of increasing energy efficiency in them. Cases studies in Albania and Kosovo. "

Budget: € 6000

Funded by: AKKSH

Partner: UPT, FIM (Prof. A. Londo)

Period: 2021-22

"Restructuring of research capacities of the Department of Energy in the field of decarbonization of the economy. (Green Economy)"

Coordinator: UPT, FIM (Prof. A. Londo)

Funded by: AKKSH

Budget: € 285,000

Period: 2021-2022

QUALITY AND EQUALITY IN HIGHER EDUCATION PROJECTS

(Founded by World Bank)

"Establishment of Physical Mechanical Laboratory of Textiles" 2007

"Establishment of the Laboratory of structural and physical-physical characterization of Materials" 2007

"Establishment of a Testing Laboratory without destruction of materials" 2007

"Establishment of CAD Laboratory" 2007

"Supply with equipment of the Production and Management Laboratory" 2009

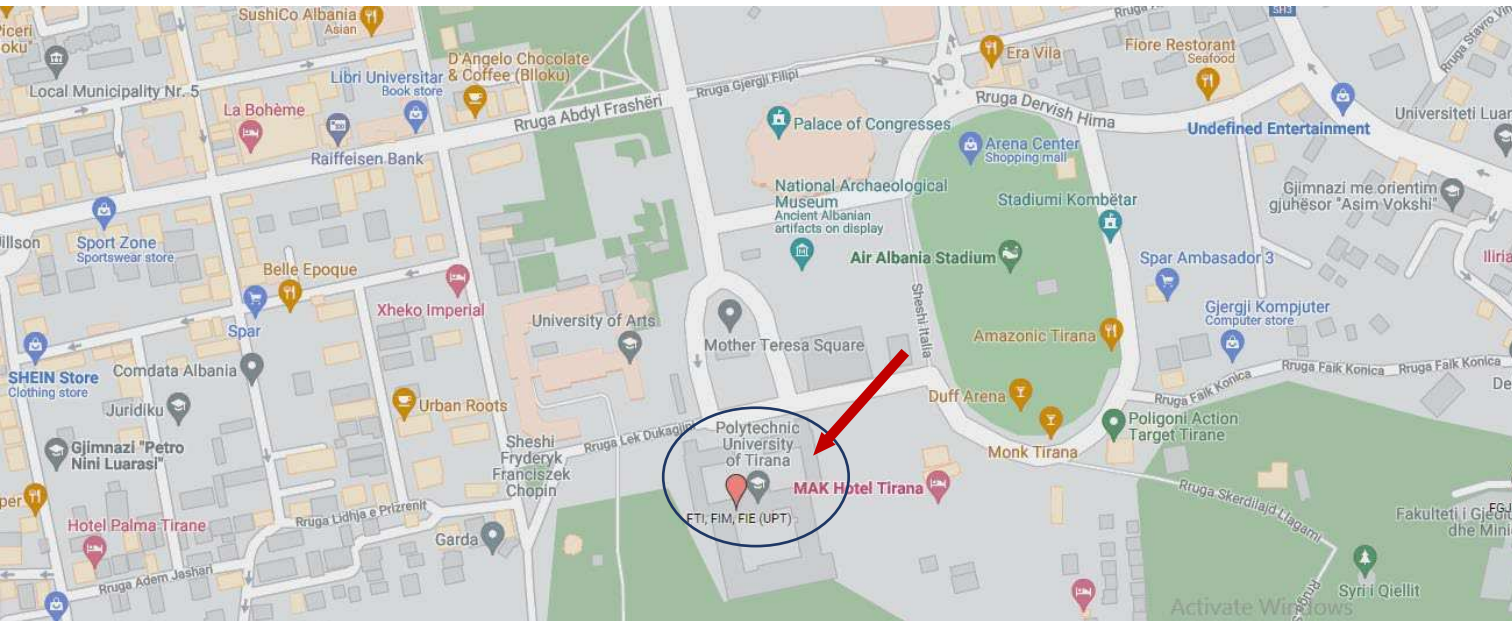
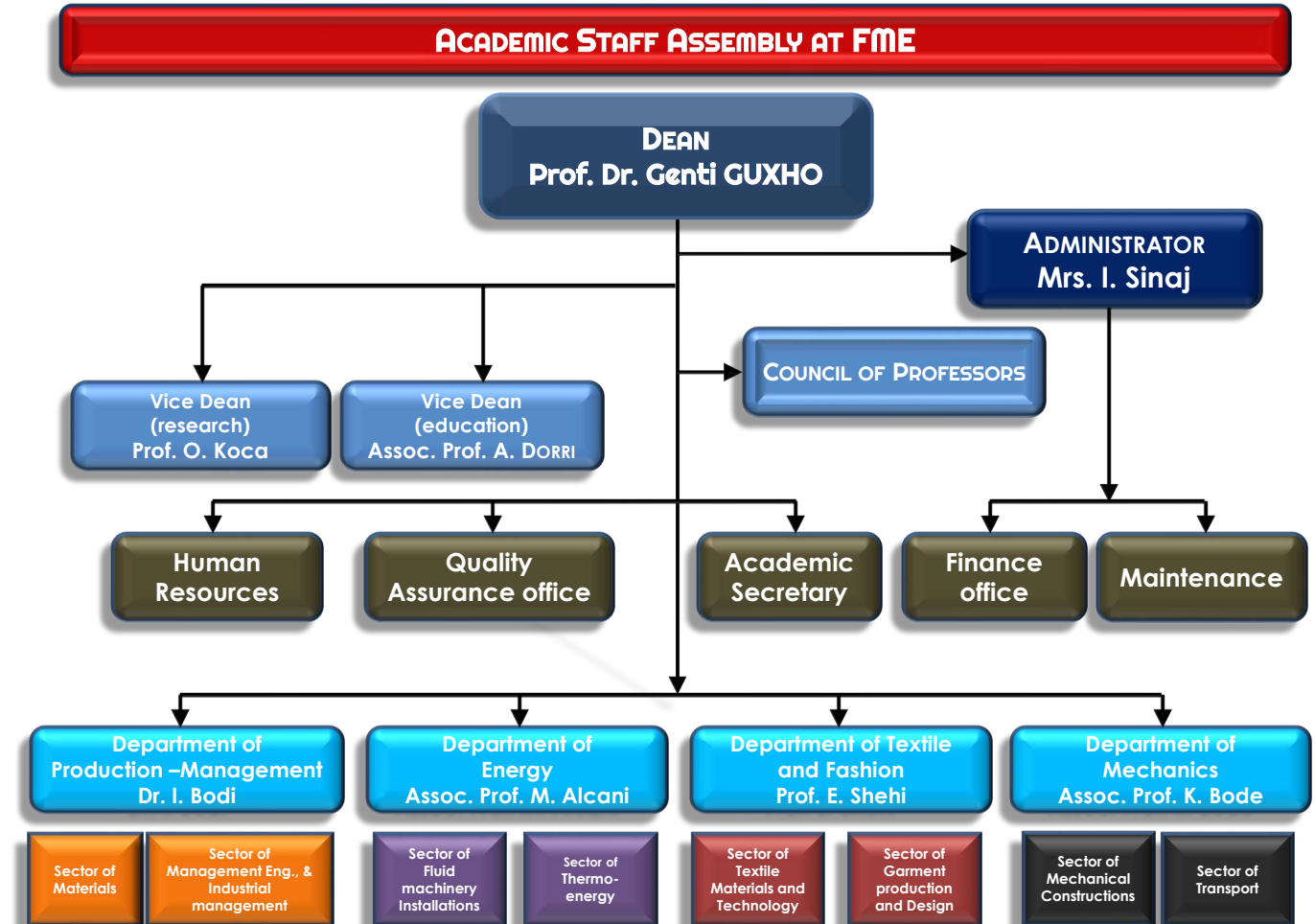


Figure 3.6 Partial map of Tirana

**Address: Faculty of Mechanical Engineering
Polytechnic University of Tirana
Sheshi "Nënë Tereza" No. 1
1019 Tirana, ALBANIA**



ORGANIZATION OF THE FACULTY



4.1 DEPARTMENTS IN FME

DEPARTMENT OF ENERGY

HEAD: PROF. MAJLIIDA ALCANI

The Department of Energy as a basic teaching-scientific unit of the Faculty of Mechanical Engineering (FME) was created by merging several departments in 1994. The mission of the department is to promote, coordinate and administer teaching and research activities, respecting the academic freedoms of the academic staff and their right to use the material and financial resources available to the department.

Rational use of energy is a topic that has had the focus of the scientific world, industry, and public opinion over the years. There are many reasons underlying this interest: the difficulty of regenerating fossil fuels in the free market, the debate over how to meet growing energy demands, and at the same time reducing the environmental impact of energy conversion processes, as responsible for the emission of greenhouse gases and pollutants.

The Department of Energy at PUT, combining internal expertise with the interdisciplinary approach of institutions operating in the energy sector, provides the right answers to the complexity of the current energy problems in our country. The objective is to ensure a continuous engagement in research and development activities at the national and international level, in cooperation with energy sector enterprises, as well as in establishing and strengthening partnerships with other organisations involved in the production and distribution of energy.

Currently, the DE has a staff of 14 members, of which 12 are academic staff and 2 are academic support staff. 11 academic staff members have scientific degrees and titles and 1 is assistant-lecturer. Head of Department is Prof. Majlinda Alcani. Heads of the department over the years have been Artan Kodra, Flamur Bidaj, Nikolin Pema, Angjelin Shtjefni, Ramadan Alushaj, Altin Dorri.

Within the Department, two teaching-research groups have been set up and are functioning, Thermo-Energy and group of Fluid Machinery and Plants. DE offers the following study programs: Bachelor study program in Mechanical Engineering in cooperation with two other departments of FME.

Master of Science in Mechanical Engineering, Profile Energy (duration 2 years)

Master of Science in Energy Management (duration 2 years)

Professional master's in mechanical engineering, Profile Energy (duration 2 years)

LLL programme on *energy audit* – buildings,

LLL programme on *energy audit* – processes,

Doctoral study in the field:

Engineering and machineries construction

subfield:

Environmental protection technology

Electricity and energy

In the didactic scientific activity of the chairs departments, which in 1994 established the Department of Energy, have given their great contribution professors:

Dr. Burhan Jukniu (born 1927)

Graduated from the Moscow Energy Institute (USSR)¹ (as a thermo-energy engineer in 1953. Engineer in enterprises in Tirana and City of Stalin (Kuçova) in the period 1953-1957. Lecturer at the Faculty of Engineering at SUT since 1957. Lecturer in "*Thermal Power Plants*" and "*Energy*". Head of the Chair of

¹ Московский Энергетический Институт – established in 1946, today named National Research Center "*Moscow Energy Institute*".

Thermo-technics (1964-1987). Vice Dean of the Faculty of Engineering at SUT (1970-1973). Compiler of mechanical branch curricula (1974-1985). Member of the Scientific Council of the Faculty of Engineering (1974-1986). In the period 1971-1973 visiting professor at the University of Prishtina (Kosovo, former Yugoslavia) in the subjects "Steam Generators" and "Energetic Stabilizations".

Dissertation Thesis:

Candidate of sciences: "Rational profiles of combined plants (plants), the gas part of which is intended to cover seasonal loads in the system" (1962)

Scientific titles / degrees: Engineer (1953) Candidate of Sciences (1962), Docent (1963), Professor (1995)

Promotor:

"Study on the burning of weak coal in a mixture with minimal amounts of fuel oil.".

for scientific degree "Candidate of Science" / **Agim Bejleri**

"Study for evaluation of the energy efficiency of concentrated and combined production of technological steam (heat) with electricity by the experimental method".

for scientific degree "Candidate of Science" / **Angjelin Shtjefni**

"Study on the efficiency of solar energy utilization by means of simple plants and integrated with heat pumps".

for scientific degree "Candidate of Science" / **Vasillaq Leno**

Author of books:

1972, 1973, 1977, 1982, 1985 "Termo-energjitika: Termodinamika teknike"

1977, 1981, 1984 "Termoenergjitika, Termoelektrocentralet";

1984 "Termoteknika: leksionet e termodinamikës teknike";

1985 "Termoteknika";

1988 "Energjitika: për profilin e impianteve të degës mekanike";

1990 "Termodinamika";

1991 "Termoelektrocentralet";

Prof. Dr. Fehmi Shehu (born 1929)

Graduated "excellent" in mechanical engineering at the Kharkiv Polytechnic Institute² (USSR) in 1953. Aspirantura³ at the Bauman Higher Technical School in Moscow ⁴ (USSR) 1959-1961. Lecturer at ILP from 1953 and from 1957 - 1983 lecturer at SUT. Zv. Rector of SUT 1967-1970, Dean of the Faculty of Engineering 1970-1983, Head of the Department of Machines 1964-1970. Lecturer of the course "Internal combustion engines". In the period 1983-1993 external lecturer at the Faculty of Mechanical

² "Политехнический Институт им. В.И. Ленина" in the city of Kharkov in present-day Ukraine,

³ Aspirantura – postgraduate study in former USSR.

⁴ Московское Высшее Техническое Училище им. Н.Э.Баумана – today Moscow State Technical University N.E. Bauman, founded in 1830. The oldest and largest polytechnic university in Russia.

Engineering. In the period 1971-1980 invited professor at the University of Prishtina (Kosovo former Yugoslavia) in the subject "Turbo-motors". Leader of the scientific group working on the Albanian unified engine and production of the DT-54 tractor (made in Albania)

Dissertation Thesis:

Candidate of sciences: "Some constructive theoretical problems related to the extension of life and the improvement of the dynamic and economic characteristics of carburettor engines that work with gasoline country road and atmospheric conditions of Albania" (1964)

Doctor of Science: (1978)

Scientific titles / degrees: Engineer (1953), Aspirantura (1961), Docent (1963), Candidate of Sciences (1964); Doctor of sciences (1978), Professor (1981).

Promotor:

"Influence of rotational masses and deviations from coaxiality of supports on the dynamics of motor axles" (1990)

for obtain the scientific degree "Candidate of Sciences" /**Asllan Hajdari** /

"Optimization of characteristic parameters in the processes that take place in the power system of Diesel engines" (1997)

for obtain the scientific degree "Doctor of Science" /**Bashkim Baxhaku** / University of Prishtina

Author of books:

1957 "Materialet lubrifikante dhe përdorimi i tyre";

1966, 1973 "Motorë me djegie të brendshme"

1971 "Autoelektrifish";

1980 "Probleme të zhvillimit të revolucionit tekniko-shkencor në fushën e mekanikës";

1985 "Makina 1: motorë me djegie të brendshme"

1985 Makina 2: motorë me djegie të brendshme" etj.

Orders / Awards: Laureate of the Republic Prize⁵ 2nd class (1970), Laureate of the Republic Prize 1st class (1979), Order "Naim Frashëri"⁶ 1st class (1977), etc.

Prof. Hysen Agolli (born 1929)

Graduated at Polytechnic Institute of Bucharest⁷ (Romania) in 1953 for mechanical engineering. Lecturer of courses "Thermal machines", "Heat generators", "Steam turbines"; "Thermo-technics" etc. In the

⁵ The Republic Prize was awarded for outstanding scientific or literary works (1951-1990). One of the highest incentives in the People's Republic of Albania, which was granted by the Council of Ministers and had 3 classes. Decree of the Presidium of the People's Assembly September 27, 1951, "On the prize of works in the field of science, arts, literature and inventions".

⁶ The 20th most important award in the People's Socialist Republic of Albania in the period 1946-1990; was awarded for outstanding activities in the field of education.

⁷ Institutul Politehni din București – today *Universitatea Politehnica din București* is a technical university in Bucharest, Romania, founded in 1818.

years 1971-1973 invited professor at the University of Prishtina (Kosovo former Yugoslavia) in the subjects "Thermodynamics" and "Turbomachines"

Scientific titles / degrees: Engineer (1953) Docent (1973), Professor (1995)

Promotor:

"Study on the extraction of the main specific thermal characteristics of the chamber type fireplace for the burning of coal in the Tirana-Durrës area in the steam generators with dusting"

for scientific degree "Candidate of Sciences" / **Kirov Mici/**

"Studies and research in the dusting system with fan mill for coals of the country with high ash content"

for scientific degree "Candidate of Sciences" / **Nikolin Pema/**

"Problems of aerodynamic characteristic and spiral demand behaviour of centrifugal fan"

for scientific degree "Candidate of Sciences" / **Gjergj File /**

"Study on aerodynamics and thermo-technics of burning coal of the country with boiling layer"

for obtain the scientific degree "Candidate of Sciences"/ **Artan Kodra /**

Author of books:

1964 Ventilatorë dhe kompresorë

1968 Termoteknika e përgjithshme

1969, 1982 Bazat teorike

1973, 1977, 1982, 1984 Pajisje dhe maqina termike: gjeneratorët e avullit;

1974 Termoteknika e përgjithshme: pajisjet e maqinat termike (I, II)

1978, 1982, 1984 Pajisjet dhe makinat termike;

1982 Pajisje e makina termike dhe impiante te industrisë: udhëzues për punët e laboratorit.

1985 Termoteknika;

1988 Makina 2: për profilin "Impiante" të degës mekanike.

1990 Termoteknika (ripunim i thelluar)

Orders / Awards: Order "Naim Frashëri" 3rd class (1970); Order "Naim Frashëri" 2nd class (1979), Order "Naim Frashëri" 1st class (1987).

Prof. Luan Voshtina (born 1930)

Graduated from the Polytechnic Institute of Bucharest (Romania) in 1953, for mechanical engineering. Lecturer at the Higher Polytechnic Institute of Tirana since 1953 and since 1957 lecturer at SUT. Lecturer of courses *"Thermal parts of the power plants"*, *"Thermo-technics and thermodynamics"*, *"Heating, ventilation, and air conditioning"*. In the period 1971-1973 invited professor at the University of Prishtina (Kosovo, former Yugoslavia), in the subjects *"Thermo-technics"* and *"Cooling installations"*. Has conducted studies and designs of heating and ventilation systems, publication of articles and monographs.

Scientific titles / degrees: Engineer (1953) Docent (1963), Professor (1995)

Author of books:

1965 Ushtrime në termoteknikë

1973 Termoenergjetika: impiantet termoenergjetikë

1970 Turbinat me avull dhe impiantet termoenergjitike

1973, 2002, 2004 "Ngrohja ventilimi dhe klimatizimi i ndërtesave: teoria dhe aplikacionet".

2006 Menaxhimi dhe prodhimi i kombinuar i energjisë

2009 "Termoteknika, ngrohja dhe ajri i kondicionuar (fizika teknike)" etc.

Orders / Awards: Laureate of the Republic Prize 2nd class (1970)

Prof. Dr. Ismail Demneri (born 1938)

Graduated in mechanical engineering at the State University of Tirana, Faculty of Engineering in 1963. Lecturer in the Chair of Thermo-technics since 1963. Lecturer of courses: "Thermo-technics" and "Industrial Plants". Zv. Dean of the Faculty of Engineering in the period 1973-1986. In the years 1971-1973 guest professor at the University of Prishtina (Kosovo former Yugoslavia) in the subject "Thermodynamics".

Dissertation Thesis:

Candidate of sciences: "Study on some energy balance problems for high consumption works and industrial regions, of the thermal energy with low potential" (1981)

Scientific titles / degrees: Engineer (1963) Candidate of Sciences (1981); Associated Professor (1994); Professor (1998).

Promotor:

"Contribution to the use of complex numbers for the optimization of the design of thermal power plants of thermal power plants, with classical and nuclear fuels" (1999)

for scientific degree "Candidate of Science" / **Januz Bunjaku**

"On the connections of combined energy production circuits with environmental factors and their impact on the conditions of our country"

for scientific degree "Doctor" / **Mirel Mico**

Author of books:

1967, 1982 "Instruksione për punë laboratorike në termoteknikë";

1968, 1976 1982 "Energjitika: për fakultetin e ekonomisë";

1979, 1983, 1985 "Impiantet e industrisë: rrjetat termike dhe pajisjet e transmetimit të nxehtësisë";

1979 "Impiante të industrisë"

1982, 1983 "Termoenergjetika: impiantet termoenergjetike";

1982, 1986 Impiante të industrisë: impiantet e ftohjes;

1983, 1986 "Impiante të industrisë: impiantet e pneumotransportit";

1983, 1986 "Impiante të industrisë: impiantet e tharjes";

1984 "Termoteknika: leksionet e termodinamikës teknike";

1985, 2003, 2007 "Termoteknika";

1990 Termodinamika;

2005, 2008, 2011 "Termoteknika në shembuj";

Orders / Awards: Order "Naim Frashëri" 2nd class (1977); Order "Naim Frashëri" 1st class (1984).

Eng. Ruzhdi Karapici (born 1940)

Graduated in mechanical engineering at the State University of Tirana, Faculty of Engineering in 1965. Lecturer in the Chair of Machines since 1965. From 1994 to 2000 lecturer in the Department of Energy. Lecturer of the course "*Internal combustion engines*". 1974-1979 guest professor at the University of Prishtina (Kosovo former Yugoslavia) in the subject "*Internal combustion engines*".

Scientific titles / degrees: Engineer (1965)

Author of books:

1977 "Punë laboratorike në motorë me djegie të brendshme".

1983 "Riparimi i detaleve

1986: Makina 1: llogaritja e motorëve me djegie të brendshme";

Tekste mësimorë për shkollat e mesme profesionale

Orders / Awards: Order "Naim Frashëri" 2nd class

Prof. Dr. Alfred Pema (born 1944)

Graduated in mechanical engineering at the State University of Tirana, Faculty of Engineering in 1967. Engineer at the Korça TPP 1967-1970. From 1970-1994 lecturer in the chair of thermo-technics. Head of the Department of Environment at the Faculty of Civil Engineering (1994-1999).

Dissertation Thesis:

Candidate of technical sciences: "*Study of the temperature regime of industrial refrigeration plants and determination of the most rational types of their evaporators*" (1981)

Scientific titles / degrees: Engineer (1967) Candidate of Sciences (1981); Associated Professor 1994); Professor (1998).

Promotor:

"*Theoretical-experimental study of aerodynamic parameters in ventilation systems of enrichment plants*" (1990)

for scientific degree "Candidate of Science" / **Gezim Nushaj**/

"*A programming system in logic and an object-oriented programming model in it*"

for scientific degree "Candidate of Science" / **Grigor Joti** /;

Author of books:

1979, 1986 "Impiante të industrisë: implantet e ftohjes";

1984 "Termoteknika : leksionet e termodinamikës teknike";

1990 "Implantet e ftohjes, të kondicionimit dhe të tharjes".

1990" Termodinamika"

Public office positions:

Minister of Education and Culture 1991-1992

Orders / Awards: Order "Grand Master⁸" (2011)

Prof. Dr. Angjelin Shtjefni (born 1945)

Graduated in mechanical engineering at the State University of Tirana, Faculty of Engineering in 1968. Lecturer in the Chair of Thermo-technics since 1971. Lecturer of the courses: "Thermo-technics" and "Technical Physics", "Heat Transmission" etc. He returned to the Faculty of Mechanical Engineering in 1993 after a break of several years. Head of the Energy section in the Department of Energy (1995-1999). Head of Department of Energy (1999-2008). President and founder of the Albanian Association of Thermo-technic (1991). Member of Italian Association of Thermo-technic ATI.

Dissertation thesis:

Candidate of technical sciences: "Study for evaluation of the energy efficiency of concentrated and combined production of technological steam (heat) with electricity with the exergy method" (1991)

Scientific titles / degrees: Engineer (1968) Candidate of Technical Sciences (1991); Associated Professor 1995); Professor (2007).

Promotor:

"Model for forecasting and selecting development scenarios for a sustainable and environmental reshaping of Kosovo's energy supply system"

for obtaining the scientific degree "Doctor" / **Argjent Ramadani** /

"Study of energy, environmental and economic indicators of urban solid waste incineration treatment"

for obtaining the scientific degree "Doctor" / **Majlinda Alcani** /

"Study of air pollutants from combustion of fuels in vehicle engines in the city of Tirana and their impact on air quality"

for obtaining the scientific degree "Doctor" / **Edlira Mulla** /

"Thermo-technical study, diagnosis and energy certification of existing and new residential buildings"

for obtaining the scientific degree "Doctor" / **Altin Bidaj** /

"Influence of spiral carcass geometric parameters on the performance of centrifugal fans"

for obtaining the scientific degree "Doctor" / **Ardit Gjetja** /

Author of books:

1975 Fletore e punëve laboratorike të termoteknike

1983 Termoteknikë : ushtrime dhe problema

⁸ The "Grand Master" Order is an honorary decoration of the Republic of Albania given to employees of various fields of science, art, sports, management, production and business for extraordinary work. The decoration is given by decree by the President of Albania. This order is golden.

1983 Termoteknikë dhe ngrohje ventilimi
1985, 2003, 2007 Termoteknika
2006 Udhëzues i punëve laboratorike në termoteknikë
2008 Termoteknikë : shtojcë : diagramet
2008, 2009 Termoteknika, ngrohja dhe ajri i kondicionuar (fizika teknike)
2013 Udhëzues i punëve laboratorike në termoteknikë
2005, 2013 Termoteknika në shembuj
2014 Termoteknikë e përgjithshme: udhëzues për dhënien dhe zgjidhjen e detyrave në lëndët e karakterit termoteknik
2013 Termoteknika : (tabela dhe diagramet e vetive termo-fizike për disa lëndë)
2018 Fizikë teknike, Termodinamika teknike I
2018 Fizikë teknike, Transmetimi i nxehtësisë II
2018 Fizikë teknike, Termodinamika teknike I (ushtrime dhe probleme)
2018 Fizikë teknike, Transmetimi i nxehtësisë II (ushtrime dhe probleme)
2021 Termoteknika e aplikuar
2022 Fizikë teknike (Termoteknikë)
2022 Fizikë teknike (Termoteknikë) (ushtrime dhe probleme)

Prof. Nikolin Pema (born 1947)

Graduated in mechanical engineering at the State University of Tirana, Faculty of Engineering in 1970. Engineer in several mechanical plants (Kukes, Shkodër) in the period 1970-1974. Guest lecturer at the SUT branch in Shkodra 1974-1977. Lecturer in the Chair of Thermo-technics from 1977-1994. Vice Dean of FIM 1992-1995. Head of the Department of Energy 1996-1998. Lecturer of courses: "Mechanical Plants" "Design of plants and enterprises".

Dissertation thesis:

Candidate of Technical Sciences: "Studies and research in the dusting system with fan mill for coals of the country with high ash content" (1987)

Scientific titles / degrees: Engineer (1970) Candidate of Technical Sciences (1987); Doctor of Sciences (1994) Associated Professor (1996).

Promoter:

"Study on aerodynamics and thermo-technics of burning coal of the country with boiling layer" (1991)

for obtaining the scientific degree "Doctor" / **Ylli Josifi** /

"Study for the construction of computational models for the design and evaluation of pneumatic transport systems"

for obtaining the scientific degree "Doctor" / **Ramadan I. Alushi** /

Author of books:

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- 1982 "Pajisje e makina termike dhe impiante te industrisë: udhëzues për punët e laboratorit".
1983 "Termoteknikë: ushtrime dhe problema".
1988 "Makina 2: për profilin "Impiante" të degës mekanike".
1995 Impiante mekanike dhe industriale

DEPARTMENT OF MECHANICS

HEAD: PROF. KOÇO BODE

The Department of Mechanics is an important constituent part of the FME structure. It covers the basic disciplines of the branches of FME and other faculties of PUT, (electrical engineering and geology, and mining) as well as the specialized subjects that are included in the diploma curricula that the Department covers. Composition of the Department:

Prof. Assoc. Dr. Koço Bode Head of Department.

Prof. Dr. Odhisea Koça Vice Dean, Prof. Asoc. Mimoza Cukalla Dhrami, Prof. Asoc. Dr. Miranda Kullolli, Prof Asoc. Dr. Dhimitraq Sotja, Dr. Koçi Doraci, Dr. Leonard Çomeni, Msc. Anis Sulejmani, Dr. Erjon Selmani, Laborant: Redon Bytyci

Heads of Department over the years (since 1994): Prof. Dr. Marenglen Gjonaj, Prof. Asoc. Dhimitraq Sotja, Prof. Asoc. Dr. Koço Bode, Prof. Dr. Odhisea Koça

The main part of the teaching activity of the Department consists of the coverage of subjects Rational Mechanics, Technical Mechanics, Science of Construction, Applied Mechanics in Machines, Elements of Machines, Constructions of Vehicles, etc. The department also offers the following study programs:

- Master of Science in Mechanical Engineering, Profile "Machine Constructions and Mobile Vehicles"
- Professional Master in Transport Engineering

The Department of Mechanics also offers short-term lifelong learning courses:

1. Auditor for Traffic and Moving Vehicles.
2. Traffic Management.

The teaching and scientific activity of the lectures of the department is organized according to the teaching plans approved by the department as well as according to their profiling and specialization and according to the respective fields within the groups of the department. The pedagogues are engaged in scientific work which is being assessed and evaluated in many publications in scientific journals inside and outside the country. The Department of Mechanics, with its academic staff, has a long experience in scientific research, and training in the fields it covers. The fields of research throughout the history of this department have been Mechanical Constructions and Numerical Methods in their calculation, Fatigue and Fracture Mechanics, Applied Mechanics, and Dynamics, Transport and Vehicles.

Some of the prominent professors in the years 1951-1991 in the fields of teaching and research, which are covered today by the Department of Mechanics, have been:

Eng. Dhimitër Verli (born 1927)

Graduated from the Polytechnic Institute of Kiev⁹ Ukraine (former USSR) in 1953. Lecturer at the Higher Polytechnic Institute since 1953. Lecturer in the Chair of Machine of the Faculty of Engineering at SUT 1957-1975. Lecturer in subjects: "*Description of vehicles*", "*Utilization of automobile transport*", "*Repair of details*", "*Theory and construction of auto-tractors*", etc. Designer of university laboratories such as lab of construction of tractors, repair, galvanization, metallization, control of electrical system and vehicle feed, etc. Designer of industrial enterprises: Durres and Elbasan Vehicle Hub, Vehicle repair workshop, reconstruction of NSHRAK (State Communication Vehicle Repair Enterprise).

Scientific titles / degrees: Engineer (1953), Docent (1970)

Author of books:

1983 "*Bazat e riparimit të automjeteve*";

Orders/Prizes: Order of Labour¹⁰ 3rd class.

Doc. Pëllumb Karalulli (born 1929)

Graduated from the Kharkiv Institute for Mechanization and Electrification of Agricultural Economy¹¹, Ukraine (former USSR) in 1953. Lecturer since the academic year 1953-54 in Higher Agricultural

⁹ Київський політехнічний інститут

¹⁰ The Order of Labour were established on October 13, 1945, as a reward for substantial contributions to economic growth and they could be awarded to individuals, factories, and collectives during the period 1945-1991 in Albania. It was 33rd in order of precedence decoration awarded in People's Socialist Republic of Albania

¹¹ Харьковский Институт Механизации и Электрификации Сельского Хозяйства (ХИМЭСХ)

Institute. 1954-1957 chief engineer of Engineering Plant Durres. Lecturer in Faculty of Engineering in SUT since 1957. Head of the Chair of Machinery in 1959-1962. Head of the Chair of Mechanical Constructions 1962-1987. Lecturer in the subject: "*Theory of mechanisms and machines*". In the period 1972-1977 guest lecturer at the University of Prishtina (Kosovo former Yugoslavia) on the subject "*Mechanisms*".

Scientific titles / degrees: Engineer (1953), Docent (1970)

Promotor:

"Study of the main problems of dynamics and their application in the design and use of cars with variable measures related to the increase of technical-economic indicators" (1987)

for scientific degree "Candidate of Technical Sciences" / Zyhdi Vajushi /

"Study of some dynamics problems for powerful vertical hydraulic aggregates related to increasing the degree of safety at work" (1990)

For obtaining scientific degree "Candidate of Sciences" / Ylli Mezini /

Author of books:

1962 "Shfrytëzimi i parkut të maqinave dhe traktorëve";

1965 "Makinat dhe veglat bujqësore";

1970, 1981, 1982 "Mekanika e aplikuar në makina: analiza strukturale dhe kinematika";

1981 "Konstruksione mekanike";

1982 Mekanika e aplikuar në makina: dinamika e mekanizmave dhe makinave";

1982 "Mekanika e aplikuar në makina: sinteza e mekanizmave";

1986 "Teoria e mekanizmave dhe e makinave"; etj.

Orders /Prizes: Order "Naim Frashëri"

Eng. Dhimitër Mihali (born 1929)

Studied mechanical engineering at the Czech Polytechnic University of Prague¹² in the Czech Republic from 1948 to 1952. Graduated in 1952. Mechanical Engineer in Textile Plant "Stalin" in Tirana (1952-1955). Lecturer in Higher Polytechnic Institute 1955-1957 and at Faculty of Engineering in SUT 1957-1973. Lecturer in subjects "*Machinery elements*" and "*Tolerance and technical measurements*". Design Engineer in Dinamo Plant in Tirana (1973 – 1980); Researcher at the Institute of Mechanical Industry Studies and Design (1980-1992).

Scientific titles/degrees: Engineer (1952)

Promoter:

"Study on determining the stability of the movement of transmissions with two cardan cranes as well as the impact of geometric deviations on this stability" (1991)

for scientific degree "Candidate of Sciences" / **Spartak Keta** /

¹² České vysoké učení technické v Praze

Author of books:

1967 dhe 1969 "Detale makinash: konspekt leksionesh";
 1970, 1977, 1980 dhe 1983 "Toleranca e matje teknike" I, II;
 1973 "Qëndresa kufitare dhe shkalla e sigurisë së detaleve të maqinave";
 1977 "Rrotat e dhëmbëzuara: gjeometria e tyre";
 1981 "Llogaritja e transmiseve me rrota të dhëmbëzuara";

Orders / Prizes: Order of Labour¹³ 3rd class; Order of Labour 2nd class.

Prof. Adnand Qatipi (born 1933)

Graduated from the State University of Tirana, Faculty of Engineering in mechanical engineering in 1957 ("excellent" diploma¹⁴). Invited lecturer at SUT (1957-63) and chief technologist of the Engineering Plant "Enver". Lecturer in the Chair of Mechanical Constructions (1963-1978). Lecturer of courses "Machine Details" and "Lifting and transporting machines". In the years 1972-1975 guest lecturer at the University of Prishtina (Kosovo former Yugoslavia), on the subject "Weight-lifting and transport machines". After 1979 at the Institute of Hydropower Studies and Designs.

Scientific titles / degrees: Engineer (1957) Docent (1972); Professor (2000).

Author of books:

1966 "Manual për mekanikë, tornitorë dhe frezatorë".
 1966, 1968 "Detalet e makinave dhe makinat ngritëse e transportuese: lidhjet";
 1966, 1972 "Detalet e makinave dhe makinat ngritëse e transmiseve";
 1966 "Detalet e makinave dhe makinat ngritëse e transportuese: Makinat ngritëse transportuese";
 1974, 1978, 1983, 1984, 1985, 1986 "Makinat peshë ngritëse dhe transportuese";
 1985 "Detalet e makinave: tekst mësimor për degët jo-mekanike";
 1983 "Makinat peshëngritëse - transportuese: bazat llogaritëse";
 1990 "Mekanizim";

Orders / Prizes: Order of Labour 3rd class (1966); Order of Labour 1st class (1986); Laureate of Republic Prize 3rd level (1970); Laureate of Republic Prize 2nd level (1977).

Dr. Fadil Ngjelina (born 1935)

Graduated from the Faculty of Mechanical Engineering at the University of Prague, Czechoslovakia in 1959 in mechanical engineering. Engineer at the Bulqiza chrome Mining 1959-1963. Engineer in the Bulqiza chrome mine. In 1964 training in copper refining technology in the People's Republic of

¹³ Order of Labor was the 33rd in order of precedence award in People Socialist Republic of Albania in the period 1945-1990. The Order of Labour were established on October 13, 1945, as a reward for substantial contributions to economic growth and they could be awarded to individuals, factories, and collectives.

¹⁴ Equivalent of *Summa Cum Laude* in the Albanian Higher Education System.

China. Lecturer in the Chair of Machines (1972-1993). Lecturer on the subjects: "Auto-tractors", "Mining machines", "Construction of machines", etc.

Dissertation thesis:

Candidate of Technical Sciences: "Study on the selection of drilling hammers according to the physical-mechanical properties of the rocks of our mineral resources" (1984)

Scientific titles/degrees: Engineer (1959) Candidate of Sciences (1984).

Author of books:

1979 "Transporti me shina".

1978, 1980 1983 "Makinat e shpimit të puseve të mineraleve të ngurta"

Prof. Ymer Shurdha (born 1936)

Graduated from the State University of Tirana, Faculty of Engineering in mechanical engineering in 1962. Lecturer in the Chair of Machines (1962-1994) and later in the Department of Mechanics (1994-1998). Head of the Chair of Machines (1992-1994). Head of the Land Vehicles and Transportation Systems section in the Department of Mechanics (1994-1998). Lecturer of courses: "Agricultural Mechanics", "Design of transport companies" and "Mechanical Plants".

Dissertation thesis:

Candidate of Technical Sciences: "On some problems for improving the utilization rate of tractors and their technical-economic indicators for the conditions of our country" (1982)

Scientific titles / degrees: Engineer (1962) Candidate of Sciences (1982); Docent (1985); Associate Professor (1994); Professor (1998).

Promoter:

"On the impact of soil conditions on plow blade consumption and the impact of their technical condition on agronomic, energy and economic indicators of the plowing process"

for obtaining the scientific degree "Candidate of Sciences" / Thanas Naçi / Higher Agricultural Institute

Author of books:

1972 "Maqinat bujqësore".

1976 "Metodika për detyrën në makina bujqësore "Projektimi i një procesi bujqësor të mekanizuar";

1989, 1996 "Mekanika bujqësore".

1982 "Projektimi i një procesi bujqësor të mekanizuar: metodikë për detyrën në makina bujqësore".

Dr. Sadik Vokshi (born 1936)

Graduated from the State University of Tirana, Faculty of Engineering in 1968 in mechanical engineering. Director of the High Vocational School in Tirana, Director of the Center for Technical Progress (1968-1972). Lecturer at the Faculty of Engineering in the Department of Mechanical Structures (1972-1993). Lecturer in the subjects: "Machine elements", "Mechanical constructions", etc.

Dissertation thesis:

Candidate of Technical Sciences: "Study on the change of constructive parameters of vehicle transmission in accordance with the conditions of use inroads of our country" (1986)

Scientific titles/degrees: Engineer (1968); Candidate of Sciences (1986); Doctor of Science (1994).

Author of books:

1981 "Konstruksione mekanike".

1983 "Detale makinash"

1984 "Detale makinash: llogaritja e detaleve të makinave"

1994 "Elemente makinash".

Dr. Zyhdi Caslli (born 1937)

Graduated from the State University of Tirana, Faculty of Engineering in 1960 in mechanical engineering. Since 1960 lecturer in the Resistance of Materials Chair. Lecturer of the course "Resistance of Materials". In the period 1972-1975 invited lecturer at the University of Prishtina (Kosovo, former Yugoslavia) on the subjects "Resistance of Materials I" "Resistance of Materials II".

Dissertation thesis:

Candidate of Technical Sciences: "Study on some problems of production and rational use of structural steels and construction criteria of optimal nomenclature in the conditions of our country" (1983)

Scientific titles / degrees: Engineer (1965) Candidate of Sciences (1983); Docent (1984).

Promoter:

"Theoretical-experimental study on the evaluation of basic parameters in vibration behaviour in bending of the rotational system" (1990)

for obtaining the scientific degree "Candidate of Sciences" / Thanas Dimroçi /

Author of books:

1964 "Përmbledhje ushtrimesh dhe problemash në rezistencën e materialeve"

1965, 1967, 1971 "Udhëzime për punë laboratorike në rezistencën materiale"

1971, 1972, 1985, 1986 "Rezistenca e materialeve";

1987 "Mekanika teorike (statika): rezistenca e materialeve"

Prof. Dr. Rahmi Korbi (born 1939)

Graduated from the State University of Tirana, Faculty of Engineering in mechanical engineering in 1965. Lecturer in the Chair of Machines since 1973. Head of the Chair of Mechanical Constructions (1987-1991). Dean of the Faculty of Mechanical Engineering 1991-1996. Lecturer of courses "Applied Mechanics in Machines", "Dynamics and Oscillations of Machines", "Special Problems of Mechanics", "Synthesis of Mechanisms", etc.

Dissertation thesis:

Candidate of Technical Sciences: *"On the problems of dynamics and their implementation for the design and reconstruction of aggregate machines of automatic machines regarding the increase of technical-economic indicators"* (1983)

Scientific titles / degrees: Engineer (1965) Candidate of Sciences (1983); Docent (1984); Professor (1994).

Promotor:

"Study on the ways to limit torsional oscillations, the equipment used for this purpose and their measurements, in ship transmissions" (1989)

for obtaining the scientific degree "Candidate of Sciences" / Arjan Bisha /

"Study on the phenomena of torsional oscillations of the engine-transmission-propeller system of ships and the ways of their avoidance" (1989)

for obtaining the scientific degree "Candidate of Sciences" / Ilir D. Çausi /

"Study and design of cyclo-grams and steering instruments in automatic machines and distribution shaft"

for obtaining the scientific degree "Candidate of Sciences" / Agim Muça /

"Basic dynamics features for a specific category of press machines"

for obtaining the scientific degree "Candidate of Sciences" / Aleksandër Gjonaj /

"Study of physical properties of barium type M hexaferrite by" Mosbauer "spectroscopy"

for obtaining the scientific degree "Candidate of Sciences" / Zef Gjonaj /

Author of books:

1983 "Analiza dhe projektimi i mekanizmave"

1985 "Sinteza e mekanizmave plane me leva";

1985 "Aspekte të studimit dhe projektimit dinamik në makina agregate: (M.A.)"

1986 "Teoria e mekanizmave dhe e makinave"

Doc. Fatmir Pejani

Graduated in mechanical engineering in Czechoslovakia. After graduating, appointed chief engineer in Textile Combine "Stalin" in Tirana. Lecturer in the State University of Tirana on the subject: *"Machine Elements"* 1957-1990. Invited lecturer at Polytechnic University of Tirana (1992-2000).

Scientific titles / degrees: Engineer (1951), Docent (1984).

Author of books:

1966, 1968, 1972 "Detalet e makinave dhe makinat ngritëse e transmisionet"

1969 "Vizatimi teknik për mekanikë"

1982, 1984, 1987 "Detale makinash: kritere kryesore të llogaritjes së detaleve të makinave"

1982 "Detale makinash transmisionet me rrota të dhëmbëzuara"

1983 "Makinat peshëngritëse - transportuese: bazat llogaritëse"

1983 "Detale makinash"

1984 "Detale makinash: llogaritja e detaleve të makinave"

1994 "Elemente makinash".

Dr. Thanas Gaçe

Graduated in mechanical engineering in Prague, Czechoslovakia (1953). Full-time lecturer at SUT from 1955 to 1973. Lecturer of the course "*Theoretical Mechanics*" and "*Engineering Mechanics*" From 1973 invited lecturer at SUT as well as engineer and designer at the Elbasan Metallurgical Plant and in the Institute of Mechanical Studies and Design. In the period 1972-1976 guest lecturer at the University of Prishtina (Kosovo former Yugoslavia) on the subjects "*Mechanics II (Dynamics)*" and "*Theory of mechanical oscillations*".

Dissertation thesis:

Candidate of Technical Sciences: "*Some aspects of point dynamics and mechanical system*" (1988)

Scientific titles/degrees: Engineer (1953), Candidate of Sciences,

Author of books:

1962 "Termoteknika e ndërtimit"

1964 "Furnizim me nxehtësi : tekst për degën e Ndërtimit të Fakultetit të Inxhinierisë";

1964 "Ventilim: për Fakultetin e Inxhinierisë"

1966 "Statika: konspekt leksionesh" (dispensë);

1967, 1970, 1972 "Leksione të mekanikës teorike" (dispensë);

1967, 1969, 1972 "Leksione të mekanikës teorike: dinamika" (dispensë);

1983, 1984 "Dinamika";

1997 "Mekanika inxhinierike: statika e trupave të ngurtë";

Eng. Genc Çelo (born 1940)

Graduated from the State University of Tirana, Faculty of Engineering in mechanical engineering in 1962. The lecturer from 1962-1975 in the Chair of Structures, Faculty of Engineering at SUT. After 1975, guest lecturer at the Faculty of Engineering. Lecturer on subjects "*Theory of Mechanisms and Machines*", "*Machine Details*" and "*Theoretical Mechanics*". Member of the Scientific Council of the Faculty of Engineering (1981-1986).

Scientific titles / degrees: Engineer (1962)

Author of books:

1970, 1981, 1982 "Mekanika e aplikuar në makina: analiza strukturale dhe kinematika";

1982 "Mekanika e aplikuar në makina: dinamika e mekanizmave dhe makinave";

1982 "Mekanika e aplikuar në makina: sinteza e mekanizmave";

1983 "Analiza dhe projektimi i mekanizmave"; etj.

Dr. Niko Zaka (born 1941)

Graduated from the State University of Tirana in mechanical engineering (1962). From 1962 to 1976 lecturer in the Chair of Mechanical Constructions at the Faculty of Engineering at SUT. Lecturer of courses "*Tolerance and technical measurements*" and "*Machine details*". In the period 1976 to 1983 engineer in the Poliçan Military Mechanical Plant and then in the Scientific Sector of the Ministry of Defense. Chief Engineer at the Institute of Studies and Designs Nr. 6 (military) (1983 - 1985). Director of Directorate of Military Industry in Ministry of Defense (1985-1991). Lecturer in the Chair of Materials Resistance at the Polytechnic University of Tirana, (1991-1992). Guest lecturer and publisher of scientific articles in the Bulletin of Technical Sciences, PUT (1991-2007).

Dissertation thesis:

Candidate of Technical Sciences: "*Determining the operational precision for increasing the effectiveness of the production process in the mechanical industry*" (1991)

Scientific titles/degrees: Engineer (1952); Candidate of Sciences (1991) Doctor of Sciences (1993)

Author of books:

1967 Punë laboratori në toleranca e matje teknike

1970, 1977 and 1980 Toleranca e matje teknike

1973 Qëndresa kufitare dhe shkalla e sigurisë së detaleve të maqinave.

1973 Kushinetat rrëshqitëse dhe rrokullisëse

1975 Detalet e makinave

1978 Aftllasi i detaleve të makinave.

Orders / Prizes: Order of Labour; Order "Naim Frashëri" 2nd class

Dr. Shkëlqim Zeqja (born 1943)

University studies at Kim Il-Sung University in Pyongyang (North Korea) in 1961 for electromechanics and completed at the Faculty of Engineering in mechanical engineering at SUT in 1967. Lecturer in the Chair of Machines from 1967 to 1993. Lecturer in subjects "*Auto-tractors*", "*Theory and construction of vehicles*", "*Processes and machines*", etc. Head of the Chair of Machines (1989-1993). Postgraduate studies at the Superior Institute of Materials of Saint-ientien (France), Politecnico di Milano (Italy), University of Calabria, Cosenza (Italy) etc. Member of the ATA (Association of Automotive Engineers) Turin, Italy.

Dissertation thesis:

Candidate of Technical Sciences: "*Study for the improvement of technical-user indicators of the automobile park and its rational use in the conditions of our country*" (1988)

Scientific titles/degrees: Engineer (1967), Candidate of Science (1988), Doctor of Science (1994)

Author of books:

1973 "Maqina ndërtimi"

1975 "Proçese dhe makina: mekanizmi i punimeve të rënda";
 1981, 1985, 1986, 1989 "Makina ndërtimi";
 1987 "Proçese dhe makina: transporti detar"
 1989 "Modelimi matematik dhe diagnostikimi i proceseve motorike";
 1989 "Projektim impiantesh: procese dhe makina";
 1990 "Mekanizim";
 1991 "Projektim impiantesh: udhëzime dhe ushtrime";
 1991 "Teoria dhe konstruktimi i mjeteve lëvizore: udhëzues i punëve laboratorike"

Dr. Hasan Pema

Graduated from SUT in mechanical engineering in 1969. Lecturer in the Chair of Machine Construction, at the Faculty of Engineering at SUT. Lecturer in the subject *"Theory of mechanisms and machines"*.

Dissertation thesis:

Candidate of Technical Sciences: *"On the generalization and dynamic evaluation of the dependencies of the movement of the parabolic system, for the projection of mechanisms with programmed movements in working machines"*

Promotor:

"Theoretical and experimental study of mechanisms combined with gears and gears" (1989)
 for obtaining the scientific degree "Candidate of Sciences" / Agim Anxhaku /

Scientific titles/degrees: Engineer, "Candidate of technical sciences"

Author of books:

1983 "Analiza dhe projektimi i mekanizmave"
 1986 "Teoria e mekanizmave dhe e makinave"

Prof. Mahmud Shushku (born 1943)

Graduated from the State University of Tirana, in mechanical engineering in 1966. From 1966 to 1971 mechanical engineer at the Chemical Plant in Laç. Lecturer since 1971 in the Chair of Machine Construction in the Faculty of Engineering at SUT. From 1994 to 2006 professor at the Department of Mechanics. Lecturer in the subjects *"Machine details"*, *"Weightlifting and transporting machines"*, *"Basis of design"*, etc.

Dissertation thesis:

Candidate of Technical Sciences: *"On some technical-experimental problems of transmissions with trapezoidal belts produced in the country"* (1985)

Scientific titles/degrees: Engineer (1966); Candidate of Sciences (1985); Doctor of Science (1994), Associate Professor (2000)

Author of books:

1981 "Konstruksione mekanike"

1982 "Detale makinash transmiseve me rrota të dhëmbëzuara"

1983 "Detale makinash";

1984 "Detale makinash: llogaritja e detaleve të makinave" I, II

1994 "Elemente makinash" etj.

Prof. Dr. Marenglen Gjonaj (born 1946)

Graduated from the State University of Tirana, in mechanical engineering in 1969. Lecturer in the Chair of Mechanical Constructions (1969-1994). Lecturer in the subject "Machine construction". Dean of the Faculty of Mechanical and Electrical Engineering (1983-1989). Head of the Department of Mechanical Construction (1989-1994) and of the Department of Mechanics (1998-2005). In the period 1972-1975 guest professor at the University of Prishtina (Kosovo, former Yugoslavia) on the subject "Weightlifting and transport machines". Scientific contribution in the field of study of material fatigue and fracture mechanics. Research in the *Mechanical Reliability Laboratory* of the University of Metz (France). Head of the Institute of Geosciences, Energy, Water, and Environment, at the Polytechnic University of Tirana (2007-2014).

Dissertation thesis:

Candidate of Technical Sciences: "Study of fatigue strength of structural steels" (1983)

Promotor:

"Study of the working capacity parameters of rotary bearings" (1987)

for obtaining the scientific degree "Candidate of Sciences" / R. Lacaj /

"On the assessment of the strength of ship support structures, through structural analysis of their models" (1990)

for obtaining the scientific degree "Candidate of Sciences" / Arben Dushi /

"On the rate of development of fatigue cracking in steels 20 and 40 for structures" (1990)

for obtaining the scientific degree "Candidate of Sciences" / Pirro Karajani /

"Features of static-dynamic resistance and automated design of metallic structures of weightlifting machines" (1995)

for obtaining the scientific degree "Doctor" / Skënder Lufi /

"Modern trends in vehicle suspensions and their optimizations in the relief of national roads"

for obtaining the scientific degree "Doctor" / Dhimitër Sotja /

"Ultrasound waves directed at the analysis of existing defects and created in structural elements and structures of special importance"

for obtaining the scientific degree "Doctor of Sciences" / Enkelejda Sotja /

"Study of working parameters of rotating bearings"

for the scientific degree "Candidate of Sciences" / Remixh Lacaj /

Scientific titles/degrees: Engineer (1969) Candidate of Sciences (1983); Associate Professor (1994); Professor (1999).

Author of books/monographs:

1982, 1984, 1987 "Detale makinash: kritere kryesore të llogaritjes së detaleve të makinave";

1983 "Makinat peshëngritëse – transportuese: bazat llogaritëse"

1986, 1989 "Konstruktionet metalike"

1990 "Mekanizim"

1994 "Elemente makinash"

2001 Pluvinage G., Gjonaj M. (eds) "*Notch Effects in Fatigue and Fracture*". (NATO Science Series II: Mathematics, Physics, and Chemistry)

DEPARTMENT OF METALLURGY (1994-1999)

The Department of metallurgy was formed based on the Chair of Metallurgy. The establishment of the Metallurgy Chair and the branch of Metallurgy at the Faculty of Engineering, responded to the rapid development of the metallurgy industry in Albania in late 1960s. The metallurgy branch first opened in 1969, as a 5-year full-time study program. In the 1980s, the Chair of Metallurgy headed by Prof. Nexhmedin Lohja, is distinguished from other chairs of FIME for:

- Opening in the period 1984-1989 of 1-year postgraduate courses.
- Extent of publishing textbooks for specialized subjects of the metallurgy study program.
- assistance with technical literature in Albanian to the Faculty of Mining in Mitrovica (University of Prishtina).
- Assistant- lecturers of this chair were trained in short-term courses at Western universities (in the framework of a UNESCO-funded project).

In the 1990s the metallurgical industry in Albania collapsed and the economy was developing in other directions than those of the period 1945-1990 (the objective to develop heavy industry). In this way, the Department of Metallurgy, in accordance with the labour market and industrial structure in Albania, made radical changes to the 5-year curriculum, initially offering two profiles: metallurgy and materials. The Metallurgy and Materials Sector successfully implemented in 2003 the Bachelor program in Materials Engineering. From 1999 onwards it is part of the Department Production and Management, initially as the Metallurgy and Materials Sector and today as the Materials Group. The

Materials Group today covers the study program of the first cycle of the Bachelor in Materials Engineering, as well as the programs of the second cycle of the Master of Science and Professional Master study in Materials Engineering.

In this way, the field of research for this teaching group, today is wider, including metallic materials, non-metallic materials, composite structures, nanomaterials, etc.

The activity of the Chair of Metallurgy is closely related to the names of the professors:

Academician Hajredin Kumbaro (1920-1999).

He began his higher studies at the Polytechnic University of Turin (Italy) and completed and graduated from the Institute of Non-Ferrous Metals and Gold in Moscow¹⁵ in metallurgical engineering in 1951. From 1951 to 1954 chief engineer of copper mine and the Copper Smelting Plant in Rubik. Director of the Institute of Geological and Mining (1966–1971). Director of the Institute of Metallurgy at the Metallurgical Combine in Elbasan (1976–1989). Designer, scholar, and researcher in the field of metallurgy of copper, iron, nickel-cobalt, and ferrochromium. Lecturer of the course "Metallurgy" at the State University of Tirana. In the period 1972-1975 visiting professor at the University of Prishtina (Kosovo, former Yugoslavia) on the subject "Non-ferrous metallurgy".

Scientific titles/degrees: Metallurgical Engineer (1951), Professor, Academician (Member of Albanian Academy of Science) (1972)

Author of books:

1979 "Metalurgjia e metaleve me ngjyra"

1983 "Teknologjia kimike 4"

Orders/ Prizes: Laureate of the Republic Prize of the 1st degree

Eng. Vasil Pashko

Author of books:

1975 "Llogaritjet metalurgjike në proçeset e prodhimit të bakrit"

Eng. Kristaq Kuneshka

Author of books:

1977 "Elektrometalurgjia dhe prodhimi i çelikut";

1978 "Proçeset teknologjike të fonderisë"

1982, 1984 "Fonderia"

¹⁵ Московский институт цветных металлов и золота им. "М. И. Калинина" – was founded in 1930. Today State University of Non-ferrous metals and gold.

Dr. Astrit Halili**Author of books:**

1983 "Furrat metalurgjike: teoria e ngrohjes së metaleve dhe materialet zjarrduruese";

1983 "Furrat metalurgjike: termoenergjitika në furrat metalurgjike";

1984 "Energjitika e furrave metalurgjike: ushtrime të zgjidhura: lënda djegëse dhe djegja e lëndës djegëse"

Prof. Dr. Nexhmedin Lohja

Studied from 1962 to 1966 at the Northeast Institute of Technology in Shenyang (PR China), graduated in 1966 as a metallurgical engineer for non-ferrous and heavy metals. From 1977 to 1993 Head of the Chair of Metallurgy at the Faculty of Engineering at UT. Vice Dean of the Faculty of Mechanical and Electrical Engineering 1985-1989. Lecturer in "Non-ferrous Metals Metallurgy". In the period 1978 to 1981 guest professor at the University of Prishtina (Kosovo, former Yugoslavia) in the branch of metallurgy at the Faculty of Mining and Metallurgy (Mitrovica Branch of UP).

Dissertation thesis

Candidate of Science: "Technological improvements at the Copper Smelting Plant, Rubik" (1987)

Doctor of Sciences: (1993)

Scientific titles/degrees: Engineer (1966), Candidate of Science (1987); Docent (1992) Doctor of Science (1993) Associate Professor (1994), Professor (1999)

Promotor:

"Optimization of the agglomeration process of the iron magnet concentrate of plant 12"

for obtaining the scientific degree "Candidate of Science" / **Përparim Demi** /

Author of books:

1985 dhe 1990 "Metalurgjia e metaleve me ngjyra: metalurgjia e bakrit";

1990 "Metalurgjia e metaleve me ngjyra: metalurgjia e nikelit dhe e kobaltit" etj.

Prof. Dr. Ylli Shehu (born 1949)

Graduated in mechanical engineering at SUT in 1972. Lecturer at the Faculty of Engineering at the University of Tirana 1972-1977. Doctoral studies in *Université Paris-Sud* (France) 1977-1981. 1981-2000 engineer at the Metallurgy Combine Plant (Elbasan), researcher at the Institute of Mechanical Studies, etc. Lecturer of FME from 2000 to 2018. Head of the Department of Production and Management (2008-2012). Vice Dean of Faculty of Mechanical Engineering (2003-2008)

Dissertation thesis:

Docteur-ingénieur¹⁶: “Mechanical properties and brittleness mechanisms of stainless steel and nickel under the action of hydrogen” (Université Paris-Sud¹⁷, France, 1981)

Candidate of Science: Equivalence of scientific degree (1984)

Promotor:

“Corrosion in the steel used in construction. Hydrogen fracture and inhibitor protection” (2007)

for scientific degree "Doctor" / **Enkela Noçka** /

“Microstructural characterization of cement-based materials, using complementary methods” (2016)

for obtaining the scientific degree "Doctor" / **Irida Markja** /

“In-depth quantitative study of multiphase diffusion in the Fe-Zn dual system” (2021)

for obtaining the scientific degree "Doctor" / **Edlira Prespa** /

Scientific titles/degrees: Engineer (1972), Docteur-ingénieur (1981) Candidate of Science (1984); Professor / Director of research (1995)

Author if books:

1975, 1976, 1982 “Përpunimi termik i metaleve”

1987 “Përpunimi teknik i metaleve”

2011 “Shkenca dhe teknologjia e materialeve tekstile”.

Prof. Dr. Vladimir Nika (born 1952)

Graduated in mechanical engineering at *Ecole National des Mines de Douai*¹⁸, (France), in 1975. Ph.D. studies in metallurgy field at *Pierre et Marie Curie Paris VI*, (France) 1979-1983. From 1983 to 2019, Professor at Metallurgy Chair and then Department of Metallurgy in the Faculty of Mechanical Engineering. Lecturer in subjects “Metallurgical Furnaces”, “Foundry”, “Methods of Scientific research” etc. 2001 Department of Research in Ministry of Education and Culture. 2002-2005 in Academy of Sciences of Albania, R&D projects unit. Head of the Department of Production and Management (2012-2016)

Dissertation thesis:

Docteur-ingénieur “Experimental determination of the solid-state separation zone in the iron-chromium system” (*Pierre et Marie Curie Paris VI*, France (1983)

Candidate of Sciences: Equivalence of science degree in University of Tirana (1984)

Promotor:

“Study on corrosion of steel A - 3 of the outer layer of marine vessels in the bay waters of Vlora” (2003).

for obtaining the scientific degree "Doctor" / **Vladimir Kasemi** /

¹⁶ Docteur-ingénieur – scientific degrees in France for in-depth studies in engineering equivalent to a PhD

¹⁷ Université Paris-Sud (also known as University of Paris XI) – was a French research university. Paris-Sud was one of the largest and most prestigious universities in France, particularly in science and mathematics. Today named *Université Paris-Saclay*.

¹⁸ *Ecole National des Mines de Douai* (previously *Ecole Nationale Supérieure des Mines*) – is a public French National Graduate School of Engineering (*Grande école d'ingénieurs*) founded in 1878.

Scientific titles/degrees: Engineer (1975), Docteur-ingénieur PhD (1983) Candidate of Science (1984); Professor (1995).

Author of books:

1984, 1988 "Metalografia"

1985 "Dictionnaire technique français-albanais : pour le génie mécanique et métallurgique"

1985 "Ushtrime të zgjidhura të metalografisë dhe përpunimit termik"

1985 "Struktura e metaleve dhe përpunimi termik";

1987 "Përpunimi teknik i metaleve".

Prof. Dervish Elezi (born 1956)

Graduated metallurgical engineer at the University of Tirana, Faculty of Engineering. Lecturer at the Chair of Metallurgy 1981-1986. Doctoral studies at the Politecnico di Torino (Italy) 1985-1989. From 1994 to 1999, Head of the Department of Metallurgy at FME. In the period 1999-2020 Head of the Group of Materials in the Department of Production and Management at FME. Lecturer in the subject: "Metallography", "Science and technology of materials", etc.

Scientific titles/degrees: Engineer (1980), Ph.D. (1989) Associate Professor (1999).

Author of books:

1984 "Metalografia".

1988 "Metalografia" etc.

DEPARTMENT OF PRODUCTION AND MANAGEMENT

HEAD: DR. ILO BODI

Department of Production and Management was established in 1994, in the framework of the reform and restructuring of the Polytechnic University of Tirana. The chairs on which the department was conceived were the former Metal Technology Chair and partly that of Engineering Graphics, while after 1999 the Department of Metallurgy was included in it. The staff of the department consists of 18 effective lecturers from them 1 Professor, 3 Associate Professors, 12 Lecturers, 2 Assistant Lecturers (Master of Science), and 2 technicians. The scientific-teaching groups are Engineering Graphics, Material Engineering, Industrial Management, and Economic Engineering.

Covers the study programs of the first cycle, Bachelor in:

- Mechanical Engineering (along with 2 other Departments at FME)
- Materials Engineering.
- Economic Engineering

Covers the second cycle of the study programs, Master of Science in:

- Mechanical Engineering Profile *Production and Management*
- Materials Engineering.
- Economic Engineering

and Professional Master in:

- Materials Engineering.

DPM offers doctoral study in the fields:

071 Engineering and engineering trades

072 Manufacturing and processing

078 Inter-disciplinary programs and qualifications involving engineering, manufacturing, and construction

subfields:

0715 Mechanics and metal trade

0722 Materials (glass, paper, plastic, and wood)

0788 Inter-disciplinary programs and qualifications involving engineering, manufacturing, and construction

Academic activity of the Department of Production and Management¹⁹ in the period 1951-1990 is closely related to the names of Professors:

Prof. Tahir Haxhiymeri (born 1924)

Graduated from the Polytechnic University of Leningrad (Sankt Petersburg, former USSR) in 1951. Lecturer at HPIT since 1952. Head of the branch of mechanical engineering from 1952 to 1957 and head of the Chair of Metals Technology from 1954 to 1974. Head of the branch of mechanical engineering in the Faculty of Engineering at the State University of Tirana 1957-1964. Vice Dean of the Faculty of Engineering 1969-1974. In the period 1971-1973 guest professor at the University of Prishtina (Kosovo, former Yugoslavia), on the subject *"Technical drawing and metal technology"*. First SUT professor invited as a lecturer to the University of Prishtina.

Dissertation thesis

Candidate of Science: *"On reducing yarn unevenness"* (1963).

Scientific titles/degrees: Engineer (1951), Docent²⁰ (1962), Candidate of Science (1963).

Author of books:

1962 "Teknologji metalesh: saldim";

1964 "Teknologji metalesh: axhusteria";

1965 "Teknologji metalesh: punime plastike të metaleve"

1966 "Teknologji metalesh: punimi i metaleve me farkëtim";

1966 "Teknologjia e metaleve: punimi i metaleve me prerje";

¹⁹ I.e., of the chairs that found in 1994 this department.

²⁰ Docent – academic title used in Eastern European countries, usually equivalent to the title of associate professor.

1967 "Saldimi i detaleve prej gize";
 1973 "Teknologjia e materialeve: fonderia";
 1973 "Teknologjia e materialeve: metalurgjia";
 1973 "Teknologjia e materialeve: përpunimi plastik i metaleve";
 1979 "Giza me grafit sferoidal";
 1982 "Përpunimi termik i metaleve" etj.

Orders / Awards: Laureate of Republic Prize (1970).

Docent Ali Proгри (born 1929)

Graduated from Kiev Polytechnic Institute²¹ Ukraine (former USSR), achieving high results in 1953. Lecturer in Higher Polytechnic University 1953-1957. Vice Dean of Faculty of Engineering at State University of Tirana 1958-1963. Director of Professional Middle Education unit in the Council of Ministers of Albania Chief Engineer in Plant "Traktori". Director for 27 years of High Vocational School in Tirana "7 November". Lecturer on subject "Engineering Technology and cutting machines" 1953-1991.

Scientific titles / degrees: Engineer (1953), Docent (1963).

Author of books:

1960 "Teoria e prerjes së metaleve dhe instrumentet prerës";
 1987 "Makina: për inxhinier mekanik teknolog";
 1988 "Teknologjia mekanike" etj.

Orders / Awards: Liberation Medal²² (1945), Medal of Remembrance²³ (1946), Honorary Title "Meritorious Master"²⁴, Order "Honour of the Nation"²⁵ 2017 (posthumous)

Ing. Sami Kumi (born 1934)

Graduated from the Higher Polytechnic Institute in mechanical engineering (1957). Lecturer at the Faculty of Engineering from 1963 to 1990, at the Chair of Metals Technology. Lecturer of courses "Materials Technology", "Welding Technology" and "Plastic processing of metals". Postgraduate

²¹ Киевский политехнический институт – a public polytechnic university in Kyiv Ukraine, founded in 1898. Today National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute".

²² It was created on October 13, 1945, as the main decoration for those who had participated in the Second World War. It was 69th in order of precedence decoration awarded in People's Republic of Albania.

²³ The Medal of Remembrance, commonly referred to as the "Partisan Memorial Star" was formally created on July 9, 1945. It was the 5th in order of precedence decoration awarded in People's Republic of Albania Awarded to individuals and groups of people who had participated in the liberation war from July 10, 1943, without interruption.

²⁴ The title "Meritorious Master" was created on June 16, 1950; and was 29th in order of precedence decoration awarded in People's Republic of Albania. It was given to primary and secondary education teachers who had practiced this profession with merit for more than 10 years.

²⁵ The Honour of the Nation (Albanian: "Nderi i Kombit") is the highest decoration to be given in Albania, among the Civil awards and decorations of Albania

specialization at La Sapienza University Rome, Italy (1972). In the period 1973-1980 invited professor at the University of Prishtina (Kosovo, former Yugoslavia) in the subject "*Technology of materials in mining*".

Scientific titles / degrees: Engineer (1957).

Author of books:

1966 "Teknologjia e metaleve: për degët jo mekanike"

1975 "Teknologjia e shkrirjes së gizës në kubitot"

1984 "Teknologjia e materialeve – për konstruksione"

2002 "Fjalor i termave themelore të mekanikës: shqip-anglisht-frëngjisht-italisht-rusisht"

Textbooks for high vocational schools etc.

Orders / Prizes: Order "Naim Frashëri" 3rd class (1974); Order "Naim Frashëri" 2nd class (1977) .

Ing. Vilhem Sina (born 1934)

Graduated from the State University of Tirana, Faculty of Engineering in mechanical engineering in 1963. Lecturer in the Department of Descriptive Geometry and Technical Drawing (1967-1990). Lecturer in the subjects "Descriptive Geometry" and "Technical Drawing". Compiler of state standards of mechanical industry (STASH).

Author of books:

1973 "Gjeometria deskriptive-vizatimi teknik: për specialitetet kimi industriale, fizikë, gjeologji, gjeofizikë, ekonomist plani"

1982, 1983 "Gjeometria deskriptive-vizatimi teknik: për degët kimi industriale, fizikë, ekonomist plani"

1975, 1982 "Album i detyrave të gjeometrisë deskriptive dhe vizatimit teknik: për specialitetin kimi industriale, fizikë, gjeologji, ekonomi plani" (*bashkautor*);

1975, 1982 "Udhëzues i detyrave të gjeometrisë deskriptive dhe vizatimit teknik: për specialitetin kimi industriale, fizikë, gjeologji, ekonomi plani" (*bashkautor*);

1986 "Udhëzues i detyrave të vizatimit teknik 2: për specialitetet, mekanik, shpim miniera, pasurim, metalurgji, tekstil" (*bashkautor*);

1989 "Fjalor i terminologjisë së gjeometrisë deskriptive dhe i vizatimit teknik: shqip-rusisht-frëngjisht, rusisht-shqip, frëngjisht-shqip (*bashkautor*);

1991 "Vizatim teknik: udhëzues për ushtrimet dhe detyrat për specialistin kimi industriale");

1993 "Vizatim teknik: për profilet: mekanik, metalurgji, tekstil, etj." (*bashkautor*)

Standarde Shtetërore (STASH) (15 tituj) në fushën e inxhinierisë mekanike

Dr. Qimon Koçomandi (born 1935)

Graduated from the Faculty of Engineering in the mechanical branch SUT (1961). Lecturer at the Faculty of Engineering from 1961-1974 and at the Faculty of Mechanical Engineering 1992-1998. Lecturer in subject "*Technical drawing and descriptive geometry*".

Dissertation thesis:

"Methods of converting projections and their application"

Scientific titles / degrees: Engineer (1961), Doctor of Science (1995)

Author of books:

1974 "Gjeometria deskriptive: progresionet ortogonale dhe aksonometrike";

1976 "Përmbledhje ushtrimesh të Gjeometrisë deskriptive: progresionet ortogonale dhe aksonometrike".

Prof. Dr. Bashkim Baholli (born 1938)

Graduated from the Faculty of Engineering in the Mechanical branch of SUT (1963). Lecturer at the Faculty of Engineering from 1963-1993. Lecturer in the subject: "*Structure of metals*". Head of the Chair of Metal Technology (1970-1993). Chairman of the National Council of the Technical-Scientific Revolution (1972-1975) In the period 1972-1979 invited professor at the University of Prishtina (Kosovo, former Yugoslavia) in the subjects "*Machinery Materials*"; "*Metal Structure*", "*Metal Technology*", "*Thermal Machines*", "*Phase Transformations*" (graduate level) and "*Metallographic Systems with 3 and 4 components*" (postgraduate studies). Scientific promotor of several dissertations in search of scientific degrees, Candidate of Sciences or Doctor of Sciences. After 1993, technical director of the "Durrësi" Plant, Technical director of the Stela company, representative of the Swiss company Axpo (formerly EGL) for implementation of the TAP project in Albania. In FME Prof. Baholli was the first lecturer to defend 2 dissertation theses (first in search of the degree "Candidate of Science" and then of the degree "Doctor of Science") before receiving the title Professor.

Dissertation thesis:

Candidate of Technical Sciences: "*Structural metallographic study of the technology of production of parts for metal particles*" (1979)

Doctor of Technical Sciences: "*Theoretical technological problems of iron-carbon bond extraction: technological problems*" (1984)

Promoter:

"*Determining the operational precision to increase the effectiveness of the production process in the mechanical industry*" (1991)

for obtaining the scientific degrees, Candidate of Sciences / **Niko Zaka** /

"*Corrosion resistance of steels with substandard chromium and nickel residues, comparisons and considerations*" (1991)

for obtaining the scientific degree "Candidate of Sciences" / **Mentor Bujari** /

"*Evaluation of chemical-structural profile, analytical and production models and increasing the effectiveness of the cementation process*" (1990)

for obtaining the scientific degree "Candidate of Sciences" / **Emil Lamani** /

"Increasing the effectiveness of mechanical industry production structures through the improvement of machine-part relations" (1990)

for obtaining the scientific degree "Candidate of Sciences" / **Lulzim Molloholli** /

Scientific titles / degrees: Engineer (1963), Candidate of Technical Sciences (1979); Docent (1982), Doctor of Science (1984), Professor (1987).

Author of books / monographs:

1969 "Teknologjia në reparte termike"

1976 "Metoda grafo-analitike të markave dhe të shtresave në furrat e shkrirjes së gizës dhe çelikut".

1977, 1982 "Struktura e metaleve".

1985 "Fjalor teknik frëngjisht-shqip për degën mekanike dhe metalurgjike";

1985 "Ushtrime të zgjidhura të metalografisë dhe përpunimit termik";

1986 "Struktura dhe përpunimi termik i metaleve";

1987 Reduktimi i ngurtë i mineraleve të hekurit dhe prodhimi i çeliqueve";

1987 "Dislokacionet";

1990 "Struktura dhe përpunimi termik i metaleve në problema formimi";

1991 "Bazat e metalografisë eksperimentale".

Monographs

1974 "Studim metalografik dhe strukturor i teknologjisë së pluhurave metalikë"

1987 "Teknologjia e ekstraktimit të çeliqueve me reduktim të ngurtë"

Order / Prize: 2 times Laureate of Republic's Prize 1st level (1979; 1984); Order "Naim Frashëri" 3rd class (1970); Order "Naim Frashëri" 2nd class (1981).

Dr. Tanush Hajnaj (born 1938)

Graduated from State university of Tirana in mechanical engineering. Lecturer at the Faculty of Engineering since 1971. Lecturer of the course *"Plastic processing of metals"* 1971-1990.

Dissertation thesis:

"Theoretical-experimental study of the recording process as an active method of plastic processing processes for the production of serrated wheels" (1981).

Scientific titles / degrees: Engineer (1964), Candidate of Sciences (1981).

Author of books:

1977 "Përpunimi plastik i metaleve"

1978 "Përpunimi plastik i metaleve – presimi-telëzimi";

1981 "Përpunimi plastik i metaleve – farkëtimi dhe stampimi";

1984 "Përpunimi plastik i metaleve ushtrime"

1987 "Përpunimi plastik i metaleve – cilindrimi".

1987 "Teoria e deformimit plastik" etj.

Ing. Koço Adami

Graduated from the Faculty of Engineering at SUT in the mechanical engineering (1958). Lecturer at the Faculty of Engineering (1958-1990), initially in the Chair of Machines and later in the Chair of Descriptive Geometry and Technical Drawing. Lecturer of the course "*Technical drawing and descriptive geometry*". Invited lecturer of the Faculty of Mechanical Engineering (1990-2001).

Scientific titles / degrees: Engineer (1958),

Author of books:

1964 "Lëndët djegëse dhe vajrat lubrifikantë".

1986 "Udhëzues i detyrave të vizatimit teknik: për degët mekanik, shpim, miniera, pasurim, metalurgji, tekstil".

1986 "Udhëzues i detyrave të gjeometrisë deskriptive"

1989 "Fjalor i terminologjisë së gjeometrisë deskriptive dhe i vizatimit teknik: shqip-rusisht-frëngjisht, rusisht-shqip, frëngjisht-shqip"

Orders / Prizes: Order "Naim Frashëri" 2nd class.

Doc. Esat Heta (born 1940)

He began his higher studies in Czechoslovakia for industry and railway transport and completed them at the State University of Tirana, at the Faculty of Engineering in 1965. From 1965 he was a lecturer at the Chair of Descriptive Geometry and Technical Drawing. Lecturer in the subjects "*Descriptive Geometry*" and "*Technical Drawing*" in some engineering branches of University of Tirana. Secretary of the High Attestation Commission (1981-1991) in the Ministry of Education and Culture.

Dissertation thesis:

Candidate of Technical Sciences: "*Construction of templates for opening the joints of the ventilation system by means of graphs*" (1981)

Scientific titles / degrees: Engineer (1965); Candidate of Sciences (1981); Docent (1983).

Author of books:

1974, 1981 "Gjeometria deskriptive: projeksionet ortogonale dhe aksonometrike"

1976, 1981, 1984, 1986 "Përmbledhje ushtrimesh të gjeometrisë deskriptive"

1972, 1982 "Vizatimi teknik I"

1974, 1976 "Vizatimi teknik II"

"Vizatimi teknik" textbook for general and vocational high schools.

Prof. Dr. Kasem Bokshi (born 1941)

Graduated mechanical engineer from the State University of Tirana, Faculty of Engineering in 1964. Engineer at the State Geological Enterprise, Tirana (1964-1967). Lecturer in the Chair of Descriptive Geometry and Technical Drawing (1967-1994). Lecturer in the subjects "*Descriptive Geometry*" and

"Technical Drawing". Head of the Section of Descriptive Geometry and Technical Drawing in the Department of Production and Management (1994-2009).

Dissertation thesis:

Candidate of Technical Sciences: "Study on the construction of surface openings with nomograms and mechanisms" (1982).

Promoter:

"Study on optimal methods in the construction and opening of ship surfaces" (1995)

for obtaining the scientific degree "Candidate of Sciences" / Gazmend F. Lila /.

Scientific titles / degrees: Engineer (1964); Candidate of Sciences (1982); Associate Professor (1994); Professor (2004).

Author of books:

1985 "Ndërtimi grafiko-analitik i hapjeve të nyjeve cilindrike me boshte që priten"

1986 "Udhëzues i detyrave të gjeometrisë deskriptive"

1986 "Udhëzues i detyrave të vizatimit teknik: për degët mekanik, shpim, miniera, pasurim, metalurgji, tekstil"

2002 "Grafika inxhinierike".

Eng. Fatmir Luga

Graduated from the Faculty of Engineering in the mechanical branch, SUT (1966). Engineer at the Poliçan Mechanical Military Plant (1966-71). Lecturer at the Faculty of Engineering, Chair of Technical Drawing and Descriptive Geometry (1971-2005). Lecturer in the subjects: "Technical Drawing", "Engineering Graphics", "Descriptive Geometry".

Scientific titles / degrees: Engineer (1966).

Author of books:

2002 "Grafika inxhinierike".

1986 "Udhëzues i detyrave të vizatimit teknik: për degët mekanik, shpim, miniera, pasurim, metalurgji, tekstil".

Prof. Dr. Aleksandër Bushati (born 1941)

Graduated from the Faculty of Engineering in the mechanical branch, at State University of Tirana (1963). Lecturer at the Faculty of Engineering (1963-1975). Deputy Director of the Institute of Metallurgical Studies and Designs, Elbasan (1979-1982). Lecturer at the Faculty of Mechanical Engineering (1982-2009). Lecturer of the course "Mechanical technology and metal cutting machines". Initiator and author of the Tempus project (Phare) "Engineer-ing curricula development in computer integrated manufacturing technologies and robotics" with the Polytechnic of Bari (Italy) (1994-1996) (the first project of the Faculty of Mechanical Engineering in collaboration with universities of the European Union).

Dissertation thesis:

"Clamps for fastening armatures" (1988)

Scientific titles / degrees: Engineer (1963), Candidate of Science (1988); Associate Professor (1994); Professor (1999).

Promotor:

"Dimensioning of workability in cutting, a determining criterion in the optimal use of chromium and nickel steels" (1992).

for obtaining the scientific degree "Doctor" / Artan Dersha /;

Author of books:

1968, 1977 "Teknologjia e punimit në torno";

1987 "Procesi i frezimit";

1987 "Teknologjia mekanike 2";

1989, 2008 "Sipërfaqet e detaleve dhe kinematika e makinave metalprerëse";

1970, 1987 "Teknologjia mekanike" I, II, III, IV.

etc.

Orders / Prizes: Order "Naim Frashëri" 2nd class; (1973) "Order of Labour" 3rd class (1978); Laureate of Republic's Prize 1st level (1982)

Prof. Dr. Adnan Bodinaku (born 1941)

Graduated from the Faculty of Engineering in the mechanical branch, at SUT (1966). Lecturer at the Faculty of Engineering (1972-2009). Lecturer in the Chair of Technical Drawing and Descriptive Geometry (1972-1976) and after 1976 in the Chair of Technology of Metals. Head of the Sector of Production in the Department of Production and Management (1994-2005). Lecturer of courses "Mechanical Technology" and "Basics of design of technological processes".

Dissertation thesis:

Candidate of Sciences: "Study on some problems of technology and organization in the mechanical industry" (1984)

Promotor:

"Technological problems of utilizing the production capabilities and effectiveness of metal cutting machines in the production structures of the mechanical industry" (1988)

for obtaining the scientific degree "Candidate of Sciences" / Jorgaq Kaçani /.

Scientific titles / degrees: Engineer (1966), Candidate of Sciences (1984), Professor (1999).

Author of books:

1981 "Projektimi i proceseve teknologjike".

1987 "Teknologjia mekanike 2";

1989 "Probleme të organizimit dhe të teknologjisë në industrinë mekanike";

1990 "Bazat e projektimit të proceseve teknologjike të punimit mekanik";

2004 "Punimi me heqje ashklash".

Prof. Dr. Përparim Deçolli (born 1949)

Graduated from the Faculty of Engineering in the mechanical branch, SUT (1971). Lecturer in the Chair of the Technology of Metals (1972-1994) and in the Department of Production Management (1994-2014). Lecturer in the subjects: "Mechanical Metrology", "Mechanical Technology", "Industrial Management of Enterprises", etc.

Dissertation thesis:

Candidate of Technical Sciences: "Study of the problems of selection of universal tools of linear measurements in the control operations of mechanical machining of details" (1985)

Scientific titles / degrees: Engineer (1971), Candidate of Technical Sciences (1985), Doctor of Science (1994), Professor (2001)

Author of books:

1993 "Metrologjia mekanike"

1981, 1983 "Pajisjet dhe instrumentet metalprerëse: instrumentet metalprerëse"

2001 "Ekonomia, organizimi dhe menaxhimi në ndërmarrjet industriale".

Prof. Dr. Gezim Demiraj (born 1949)

Graduated in mechanical engineering at State University of Tirana in 1972. Lecturer at the Faculty of Engineering at the University of Tirana since 1977. Doctoral studies at the *Université Pierre-et-Marie-Curie*, Paris, (France) 1979-1983. Lecturer of courses "Theory of Plastic Deformation", "Processes and machines of plastic deformation", etc. Head of Department of Production and Management (1994-2008). Head of Postgraduate School in production-management (2002-2008).

Dissertation thesis:

Doctor-Engineer: "Relationships of structures with the mechanical properties of copper-aluminium alloys: the influence of iron and nickel" (*Université Pierre-et-Marie-Curie*, France, 1983).

Candidate of Science: Equivalence of scientific degree (1984).

Scientific titles / degrees: Engineer (1972); Doctor-Engineer (1983); Candidate of Science (1984); Professor (1999).

Docteur-ingénieur: "Relationship of structures with mechanical properties of copper-aluminum alloys: the influence of iron and nickel" (*Université Pierre-et-Marie-Curie*, France, 1983).

Candidate of Sciences: Equivalence of scientific degree (1984).

Scientific titles / degrees: Engineer (1972); Doctor-Engineer (1983); Candidate of Science (1984); Professor (1999).

Promoter:

"Problems with the development of the mechanical industry, ways and enterprises to solve them"

for obtaining the scientific degree "Doctor" (1999) / Avenir Kika /.

Author of books:

1984, 1988 "Metalografia";

1987 "Teoria e deformimit plastik"

1987 "Dislokacionet";

1989 "Shkarja e metaleve";

1990 "Struktura dhe përpunimi termik i metaleve në problema formimi".

Prof. Emil Lamani (born 1952)

Graduated as a mechanical engineer at the University of Tirana, Faculty of Engineering in 1976. Lecturer at the Department of Metal Technology since 1980. Rector of the Polytechnic University of Tirana (1995-1997). Lecturer of subjects "Technology of materials and applied chemistry", "Technology of Metal Materials", "Selection of materials", etc. Completed postgraduate specializations and post-doctoral studies at: *Institut Supérieur des Matériaux et de la Construction Mécanique*²⁶ (ISMCM) Paris (France), Politecnico Bari (Italy), etc. Team-leader of several scientific projects, author of scientific articles and promoter of PhD students.

Dissertation thesis:

Candidate of Technical Sciences: "Evaluation of chemical-structural profile, analytical and production models and increasing the effectiveness of the cementation process" 1990.

Promoter:

"Development of databases and selection procedures in the field of materials" (2008)

for the scientific degree "Doctor" / Shpresa Tafaj (Caslli) /

Scientific titles / degrees: Engineer (1976), Candidate of Sciences (1990); Doctor of Science (1994); Associate Professor (1999).

Author of books:

1990 "Struktura dhe përpunimi termik i metaleve në problema formimi"; etc.

Prof. Dr. Adriana Kumbaro Gjonaj (born 1954)

Graduated from University of Tirana, Faculty of Engineering in mechanical engineering in 1978. Lecturer at Faculty of Mechanical Engineering, and later at the Faculty of Natural Sciences (1978-1991). Head of the Department of Informatics at Polytechnic University of Tirana (1994-2005).

Dissertation thesis:

Candidate of Technical Sciences: "Some problems of control automation to increase quality accuracy and production effectiveness in the mechanical industry" (1986)

Promoter:

²⁶ Superior Institute Superior of Materials and Mechanical Construction.

"Informatization of the professional education certification process: in fulfilment of the obligations of the Doctoral program in Economic Sciences profile: Management of Information Systems"

for obtaining the scientific degree "Doctor" / Kastriot Haxhiu / Kosovo

"Study of the tourist network with the help of graph theory, a case of the city of Durres":

for obtaining the scientific degree "Doctor" / Besjana Tosuni /

"Performance of WDM & EDFA technology transmission system: the case of the Pristina-Skopje line":

for obtaining the scientific degree "Doctor" / Besim Limani /

"Communication of emergency systems and synchronization of data in mobile device applications: the case of Kosovo"

for obtaining the scientific degree "Doctor" / Zijadin Krasniqi /

"Intelligent management of electricity in residential buildings and institutions"

for obtaining the scientific degree "Doctor" / Marjon P. Pano /

"Interaction between heterogeneous Linux, Unix and Windows systems for network communications using the CORBA (Corba Group Services) standard"

for obtaining the scientific degree "Doctor" / Elda Nallbani /

Scientific titles / degrees: Engineer (1978), Candidate of Sciences (1986); Doctor of Sciences (1994); Associate Professor (1999), Professor.

Author of books:

1997 "Informatika: programimi në PASKAL: për fakultetet e inxhinierisë"

Public office positions

Member of the Parliament of Republic of Albania in the 7th Legislature (2009-2013)

Deputy Minister of Education and Science (2005-2008).

DEPARTMENT OF TEXTILE AND FASHION

HEAD: PROF. DR. ERMIRA SHEHI

The Department of Textile and Fashion is one of the units of the Faculty of Mechanical Engineering at the Polytechnic University of Tirana. The Branch of State University of Tirana of Textile Engineering was founded in 1968 in Berat and in 1984 the Chair of Textile was established at the Faculty of Mechanical and Electrical Engineering at University of Tirana. The staff of the Department consists of 2 professors, 2 associate professors and 6 Doctors of Sciences:

Prof. Dr. Ermira Shehi; Prof. Dr. Genti Guxho; Prof. Assoc. Dr. Blerina Kolgjini; Prof. Assoc. Dr. Ilda Kazani; Dr. Majlinda Hylli; Dr. Silva Spahija; Dr. Elmira Dumishllari; Dr. Tatjana Spahiu; Dr. Ilda Kola; Dr. Albana Leti Tota; Msc. Enila Laçi; Msc. Riana Hida

The Department of Textile and Fashion offers the following study programs:

Bachelor in Textile Engineering and Fashion

Master of Science in Textile Engineering and Fashion

PhD studies in the field of research:

Production and processing technology; with
subfield: Textiles (clothing, footwear, and leather).

The Department of Textile and Fashion is a member of several international university networks:

AUTEX (European Textile Universities Network) 2008

SATRA (Center for Technological Knowledge, Research and Testing for Leather and Shoes) 2013

NETFAS (Network of European Universities of Applied Textile and Fashion Sciences) 2021

The quality control laboratory of textile and leather products in the Department of Textile and Fashion is accredited from 1996 onwards according to international standards. Today the Laboratory is accredited according to the ISO / IEC 17025: 2017 standard, by the General Directorate of Accreditation (national body for accreditation of testing and calibration laboratories).

The activity of the department and the branch of textile engineering in the years 1968-1990, has been closely connected with the names of the Professors:

Prof. Taxhedin BAHOLLI

Graduated from Lodz Polytechnic University ²⁷, Poland, in textile engineering in 1961. 1961-1964, Chief Engineer in Textile Plant "Stalin" in Tirana; from 1964 till 1972, Chief Engineer in Textile Plant "Mao Ce Dun" in Berat. Director of Internships Unit in Ministry of Education and Culture (1972-1979). Head of Research Institute in Light Industry (1987-1993). Founder of Higher School of Textile Engineering (3 years part-time study program) in Berat (1968) and of 5-year study program in textile engineering at University of Tirana. Lector on subjects "Technology of Spinning", "Textile Materials" "Structure of yarns" etc. Team leader of several research and development projects in textile industry. The jury in the defence of the dissertation thesis in search of the degree of Candidate of Sciences (1987), proposed, and then the High Attestation Commission approved that Prof. Taxhedin Baholli to simultaneously obtain both scientific degrees (Candidate and Doctor of Sciences)

Dissertation Thesis:

Doctor of Sciences: "Extensive use of chemical fibers in the existing conditions of natural fiber processing in our textile industry" (1989)

Promoter:

"Study of mechanical-technological processes and conception, design of factory lines for the production of cellulose with domestic raw materials" (1990)

for obtain the scientific degree " Candidate of Sciences " / **Sali Frashëri** /

Scientific titles / degrees: Magister – Engineer (1961), Candidate of Technical Sciences (1989), Doctor of Sciences (1989); Associated Professor (2002).

Author of books:

1966 "Teknologjia e filaturës së pambukut".

1972 "Fibrat bimore"

²⁷ Politechnika Łódzka – u themelua në 1945. Është një nga universitetet më të mëdhenj politeknikë në Poloni.

1972 "Fizika Tekstile I", "Fizika Tekstile II";

1987 "Struktura e fijeve" (dispensë) etj.

Dr. Moisi KUKELI

Titles / Degrees: Industrial Chemistry Engineer (1961), Candidate of Sciences (1979); Senior research associate²⁸; Doctor of Sciences.

Dissertation thesis:

Candidate of Technical Sciences: *"Determination of optimal dyeing parameters of ribbons and polyester fibers with disperse dye by carrier and high temperature methods for polyester-wool lines"* (1979).

Author of books:

1967 "Në botën e polimerëve"

1988 "Teknologjia kimike e tekstileve"

1989 "Teknologjia e përmbartimit të tekstileve: për shkollat e mesme profesionale"

Mg. Eng. Kozma XHERO

Graduated from Lodz Polytechnic University, Poland, in textile engineering. Lecturer of the course "Technology Weaving" at the Higher School of Textile Engineering in Berat (1968-1984) and at the branch of textile engineering at FIME (1982 - 1987). Director of the Textile and Clothing Department in the Ministry of Light and Food Industry (1979-1982). Head of the Textile Chair at Faculty of Mechanical and Electrical Engineering (1984-1987).

Author of books:

1994 "Teknologjia e tezgjahut 1, 2"

Textbooks for high vocational schools etc.

Eng. Eva BUDINA

Graduated from Leningrad Textile Institute "S.M. Kirov"²⁹, in Leningrad (Sankt Petersburg) former USSR in textile engineering profile: wool processing. Director General (chief manager) of Textile Plant "Stalin" in Tirana (1970s). Head of Textile Chair at Faculty of Mechanical and Electrical Engineering (1987-1991). Lecturer on the subjects "General Technology of Textiles" "Management of textiles plants".

Author of books:

1990 "Teknologjia e përgjithshme e tekstileve".

²⁸ Senior scientific associate – scientific title, given to research staff, part of scientific institutes before 1991 (analogous to the title Docent, given to lecturers at the University and higher institutes). Similarly, research institutes awarded the title "Master of Research" and "Director of Research" analogous to the title Associate Professor and Professor.

²⁹ Ленинградский текстильный институт им. С. М. Кирова.

Public office position:

Deputy in People Assembly of Albania in 3 legislations (1974-1986).

Mg. Eng. Shega SHAPLLO

Graduated from Lodz Polytechnic University, Poland, in textile engineering. Lecturer of the course "Science and technology of textile materials" and "Textile Metrology" at Higher School of Textile Engineering in Berat (1968-1984) as well as at textile engineering branch in Faculty of Mechanical and Electrical Engineering (1982 – 1997). Head of Textile Chair (1991).

Author of books:

1979, 1982, 1987 "Kontrolli i materialeve tekstile";

1987 "Metodologjia e tekstilit";

1982 "Kontrolli i materialeve tekstile";

1994 "Materialet tekstile"

Tekste mësimore për shkollat e mesme teknike.

Dr. Vangjel HAXHISTASE

Graduated from State University of Tirana in mechanical engineering. Director of branch campus in Berat of SUT (1980-1984). Chief engineering in Textile Plant "Mao Ce Dun", Berat. Effective professor in Textile Chair 1986-1993. Lecturer of subject "Textile Machinery 1, 2".

Dissertation thesis:

Candidate of Technical Sciences: "Theoretical-experimental study on problems of dynamics of thread-forming axes and their application in the design and production of new structures related to the increase of technical-economic indicators" (1986).

Scientific titles/degrees: Engineer (1975), Candidate of Sciences (1986).

Dr. Albana PETRELA

Graduated from University of Tirana, for textile engineering (1990). Lecturer in the Textile Chair 1900 - 2001. Lecturer of subjects: "Yarn structure", "Fiber materials", "Textile metrology", "Encyclopedia and Technology of Textiles", etc. Head of the Textile Chair 1991-1994. Head of Department of Textiles 1994-2001. Member of the first Academic Senate of the Polytechnic University of Tirana (1999-2001). Leader of the process of reorganization of the branch of textile engineering and the Faculty of Mechanical Engineering in the period 1991-1994, drafter of new curriculum of textile engineering mainly according to the models of Italian polytechnic universities. Author of several scientific articles. Postgraduate qualification in *Ecole Nationale Supérieure des industries Textiles de Mulhouse* (France)

Dissertation Thesis:

Doctor of Sciences: *"Evaluation of yarn tensile strength through a theoretical-experimental modelling of the relationship of fibbers properties with the properties of yarn produced by mixing them"*

Scientific titles / degrees: Engineer (1990), Doctor of Science (1994)."

Scientific titles/degree: Engineer (1990), Doctor of Sciences (1994).

DEANS OF THE FACULTY OVER YEARS

HIGHER POLYTECHNIC INSTITUTE OF TIRANA

1951 - 1957 Prof. Zija Këlliçi (Director)

Mechanical Engineering branch at HPIT

1952 - 1957 Prof. Tahir Haxhiymeri

FACULTY OF ENGINEERING SUT

1957 - 1966 Prof. Kiço Negovani

1966 - 1970 Prof. Besim Daja

1970 - 1983 Prof. Fehmi Shehu

FACULTY OF MECHANICAL AND ELECTRICAL ENGINEERING AT UT

1983 - 1989 Prof. Marënglen Gjonaj

1989 - 1991 Prof. Gëzim Karapici

FACULTY OF MECHANICAL ENGINEERING, PUT

1991 - 1995 Prof. Rahmi Korbi

1996 - 1998 Prof. Flamur Bidaj

1998 - 2003 Prof. Andonaq Londo

2003 - 2008 Prof. Jorgaq Kaçani

2008 - 2012 Prof. Andonaq Londo

2012 - 2016 Prof. Andonaq Londo

2016 - 2020 Prof. Jorgaq Kaçani

2020 - Prof. Gënti Guxho

ORGANIZATIONS AND ASSOCIATIONS

ALUMNI NETWORK MECHANICAL ENGINEERING (AIM)

On the initiative of some emeritus professors of the Faculty of Mechanical Engineering at PUP, on May 26, 2021 was established the Alumni/ae Association of the Faculty of Mechanical Engineering, AIM (**A**lumni/ae **M**echanical Engineering). In the founding meeting, a provisional steering commission was established with Prof. Dr. Angjelin Shtjefni the as acting president

the aim of AIM is the support and development of cultural and historical values and traditions, science and education, physical and spiritual education, as well as for any other direction for the benefit of current students and all graduates in previous generations. Alumni / ae Mechanical Engineering Network represents all graduates over the years at FIM. AIM

will serve the further development of FIM at UPT, as well as increase the quality of the professor at the Faculty of Mechanical Engineering, for a better and better future.

AIM will also work to expand inter-university cooperation, but also with research institutions and manufacturing companies and various associations both at home and abroad, in Europe and beyond, worldwide. In this way the creation of the AIM Network will serve to maintain contacts, exchange experiences, job opportunities notices and information exchange as well as publish success stories.

ALBANIAN THERMO-TECHNICAL ASSOCIATION

The **A**lbanian **T**hermo-**T**echnical **A**ssociation (ATA) was established in 1991. The presidents of the ATA were: Prof. Nikolin Pema (1991-1998), Prof. Hysen Agolli (1998-2002). Prof. Angjelin Shtjefni (2002 - ongoing). ATA is a voluntary union of engineers of thermo-technical profile, to develop activities in this field, in the interest of economic and social development of the country. ATA has so far organized 5 scientific conferences.

ASSOCIATION OF MECHANICAL ENGINEERS

The Association of Mechanical Engineers of Albania was established in October 1996. President 1996-2021 was Eng. Gaqo Apostoli. From 2021 President of the Association is Prof. Dr. Odhisea Koça.

ACADEMIC AND SUPPORT/ADMINISTRATIVE STAFF

No.	Name	Surname	Title / Degree	Function
1	Genti	Guxho	Prof. Dr.	Dean
2	Ingrida	Sinaj	-	Administrator
3	Altin	Dorri	Prof. Asoc.	Vice Dean
4	Odhisea	Koca	Prof. Dr.	Vice Dean
Department of Energy				
5	Majlinda	Alcani	Prof. Asoc.	Head of Department
6	Andonaq	Lamani	Prof. Dr.	Head Section
7	Ramadan	Alushaj	Dr.	
8	Flamur	Bidaj	Prof. Asoc.	
9	Altin	Maraj	Prof. Asoc.	Head Section
10	Artan	Hoxha	Dr.	
11	Rexhep	Karapici	Dr.	
12	Albert	Shira	Assistant lecturer	
13	Ardit	Gjeta	Dr.	
14	Lorenc	Malka	Dr.	
15	Edmond	Zeneli	Dr.	
16	Spartak	Pocari	Dr.	
17	Andon	Dono	-	Qualified technician
18	Ernest	Dylgjери	-	Technician
Department of Mechanics				
19	Koco	Bode	Prof. Asoc.	Head of Department
20	Dhimitraq	Sotja	Prof. Asoc.	
21	Koci	Doraci	Dr.	
22	Mimoza	Dhrami	Prof. Asoc.	
23	Miranda	Kullolli	Prof. Asoc.	Head of Section
24	Anis	Sulejmani	Lecturer	
25	Erjon	Selmani	Dr.	
26	Leonard	Comeni	Dr.	Head of Section
27	Redon	Bytyci		Laboratory assistant
Department of Production and Management				
28	Ilo	Bodi	Dr.	Head of Department
29	Vladimir	Kasemi	Prof. Dr.	
30	Dervish	Elezi	Prof. Asoc.	

No.	Name	Surname	Title / Degree	Function
31	Enkelejda	Konda	Dr.	
32	Shpresa	Tafaj	Prof. Asoc.	Head of Section
33	Jonida	Teta	Prof. Asoc,	
34	Irma	Shyle	Dr.	
35	Anesti	Nasi	Assistant lecturer	
36	Migena	Zeço	Dr.	
37	Elena	Bebi	Dr.	
38	Erald	Piperi	Dr.	
39	Indrit	Vozga	Dr.	
40	Irida	Markja	Dr.	Head of Section
41	Eralda	Xhafka	Dr.	
42	Valma	Prifti	Dr.	Head of Section
43	Klodian	Dhoska	Dr.	
44	Idlir	Dervishi	Dr.	
45	Giorgio	Mustafaraj	Dr.	
46	Dea	Sinoimeri	Assistant lecturer	
47	Migena	Laska		Qualified technician
48	Shkelqim	Bici		Qualified technician
Department of Textile and Fashion				
49	Ermira	Shehi	Prof. Dr.	Head of Department
50	Blerina	Kolqini	Prof. Asoc.	Head of Section
51	Ilda	Kazani	Prof. Asoc.	Head of Section
52	Elmira	Dumishllari	Dr.	
53	Silva	Spahija	Dr.	
54	Majlinda	Hylli	Dr.	
55	Tatjana	Spahiu	Dr.	
56	Ilda	Kola	Dr.	
57	Albana	Leti	Dr.	
58	Enila	Laci	MSc	Qualified technician
59	Riana	Hida	MSc	Qualified technician
60	Elona	Lika	MSc	Qualified technician
Administration				
61	Juvelta	Dalipaj		Head of human resources
62	Albana	Tahiri		Head of Finance Unit
63	Xhemi	Vrapi		Finance Specialist
64	Eriselda	Profka		Head of secretary office

No.	Name	Surname	Title / Degree	Function
65	Aida	Papa		Specialist in Secretary office
66	Fjona	Sulanjaku		IT Specialist
67	Jona	Amiti		Career / alumna Specialist
68	Alketa	Cela		Specialist
	Maintenance			
69	Milo	Shameti		Technician
70	Mimoza	Bakllava		
71	Trendafilë	Disha		
72	Xhentila	Qyra		
73	Irena	Mima		
74	Blerina	Agolli		

